Cultivating Creativity: The Practice of Teaching for Creativity in the Elementary Classroom

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CULTIVATING CREATIVITY: THE PRACTICE OF TEACHING FOR CREATIVITY IN THE ELEMENTARY CLASSROOM

A Dissertation
Presented to
The Faculty of the Morgridge College of Education
University of Denver

In Partial Fulfillment
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Doctor of Philosophy

by
Karin M. Colley
June 2015
Advisor: Dr. P. Bruce Uhrmacher
Abstract

Limited resources in public education and a focus on the “basics” have resulted in a narrowing of the curriculum, which, in turn, has led to a dramatically minimized role for the arts and creativity (Mishook & Kornhaber, 2006). Our world and the ways in which we access and share knowledge continue to evolve at an alarming rate. With this, complex issues arise—issues that will need fresh, innovative eyes that can cultivate creative solutions. The success of our society is fueled by creative and flexible minds that can generate innovative and authentic solutions to some of our most complex problems (Craft, 2003; Parkhurst, 1999; Pink, 2005; Robinson, 2011). Through this study, I hope to reveal that today’s teachers, even with the many constraints and limitations they face, can still prepare our youth for the diverse world they will inherit by fostering student creativity through their approach to teaching. I propose that even the most mundane standards and learning objectives can be constructed into meaningful learning experiences when our imaginations are included in the conversation (Uhrmacher, Conrad, & Moroye 2013). This study seeks to ignite that conversation.

The purpose of this study is to examine the practice of teaching for four public elementary teachers who have been identified as teachers who work toward cultivating creativity and innovation in their students. Four questions guided this study: 1) What are the intentions of teachers who cultivate creativity and more specifically, creative habits of
mind in students? 2) How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students? 3) How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students? 4) What is the educational significance of these ideas and practices for students, teachers, and administrators? Educational Connoisseurship and Criticism, an arts-based qualitative research method (Eisner, 1998) is used in this study. Data collection consisted of observations and interviews lasting approximately two to three weeks in each participating teachers’ classroom.

Several key findings emerged. At the intentional level, all teachers addressed the process of learning, stating that they strive to engage students in a rich process of learning and critical thinking. Similarly, all participating teachers referenced the importance of joyful discovery in the learning process. The last consistent theme among the four participating teachers was the desire to create a safe atmosphere in which students felt comfortable enough to be themselves and take risks in the learning process. There were many commonalities in the physical environments of the four classrooms including freedom of choice, flexibility, and full access to classroom materials. At the pedagogical level, the teachers exhibited the following pedagogically inspired traits: they viewed themselves as facilitators of learning, they sought to promote independence and autonomy through pedagogical choices, they took steps to ensure teaching for conceptual understanding, and they sought to encourage flexible thinking in students.

This study has a variety of implications for cultivating creativity in an elementary classroom setting. Perhaps most noteworthy, is that while the participating teachers demonstrated that cultivating creativity in today’s public school classrooms is feasible,
they also expressed immense dissatisfaction with their careers. They emphasized that they were exhausted, frustrated, and feeling somewhat despondent about their futures in the classroom. This finding is significant for school and district administrators as job satisfaction and teacher retention are important elements to creating a successful, thriving school.
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Chapter One

Introduction and Rationale

“How do we teach kids what to do when they don’t know what to do” (Elliot Eisner, personal communication, April 28th, 2013). The words trickled from his mouth in a slow and deliberate manner. Two years ago, I had the honor of meeting Elliot Eisner at the annual AERA conference in San Francisco. Sadly, Parkinson’s had taken residence in his body and was strongly affecting his mobility and speech; however, his mind remained lucid. Limited background noise, and a small amount of patience for short pauses was all it took to hear the arts education advocate convey his powerfully captivating stance on the importance of arts in education. He expressed genuine interest in finding ways to educate children to become innovative problem solvers who can generate useful solutions with autonomy.

In this study, I strive to illuminate the practice of teaching of four exemplary elementary school teachers who cultivate creativity in their students. I have selected three elementary school sites, each of which have an emphasis on integrating the arts and nurturing creativity in students. From these schools sites, four exemplary classroom teachers have been selected based on specific administrator recommendations. Eisner poignantly posed, “How do we teach kids what to do when they don’t know what to do?”, in an era of an emphasis on standards, high-stakes testing and accountability. It is my
hope that by focusing on teachers and schools where creativity and innovation continue to be cultivated in students, his question can begin to be answered.

Globalization has meant that our world continues to transform rapidly every day. Unfortunately, it seems as though our educational system continues to remain relatively stagnant (Robinson, 2011). This is incredibly problematic for a variety of reasons. I posit that our classrooms should reflect our society and prepare students for the world they are entering. If our educational system does not evolve with the pace of society, how can we successfully prepare tomorrow’s leaders? New technologies and greater access continue to affect the ways we gather and share knowledge. Our society and the issues that affect it continue to become increasingly more diverse. The success of our society is fueled by creative and flexible minds that can generate innovative and authentic solutions to some of our most complex problems (Craft, 2003; Parkhurst, 1999; Pink, 2005; Robinson, 2011). Ken Robinson (2011) summarizes this very eloquently when he states:

Given the speed of change, governments and businesses throughout the world recognize that education and training are the keys to the future, and they emphasize the vital need to develop powers of creativity and innovation. First, it is essential to generate ideas for new products and services, and to maintain a competitive edge. Second, it is essential that education and training enable people to be flexible and adaptable, so that businesses can respond to changing markets. Third, everyone will need to adjust to a world where, for most people, secure lifelong employment in a single job is a thing of the past. (p. 6)

Daniel Pink (2005) describes the significance of creative abilities in modern society:

Today, the defining skills of the previous era—the “left brain” capabilities that powered the Information Age—are necessary but no longer sufficient. And the capabilities we once disdained or thought frivolous—the “right brain” qualities of inventiveness, empathy, joyfulfulness, and meaning—increasingly will determine who flourishes and who flounders. (p. 3)
In the current educational climate of high stakes testing, a great deal of money, time and effort have been put toward raising the current standards and student performance. When reformists talk about raising standards in hopes of improving performance, they are generally referring to “teaching the basics” (Csikszentmihalyi, 1996; Kohn, 2000; Robinson, 2011) And when they focus efforts on teaching the basics, this generally means there is no room left at the table for the arts, particularly the creative arts. Csikszentmihalyi (1996) summarizes this point by stating:

When school budgets tighten and test scores wobble, more and more schools opt for dispensing with frills-usually with the arts and extracurricular activities- so as to focus instead on the so-called basics… if the next generation is to face the future with zest and self-confidence, we must educate them to be original as well as competent. (p. 12)

**Significance of the Study**

This study is important for a variety of reasons. First and foremost, while we cannot change the educational system overnight, we can develop and fine-tune our approach to teaching in a relatively short amount of time. Through this study, I hope to reveal that today’s teachers, even with the many constraints and limitations they face, can still prepare our youth for the diverse world they will inherit by fostering their creativity through their approach to teaching. I propose that even the most mundane standards and learning objectives can be constructed into meaningful learning experiences when our imaginations are included in the conversation (Uhrmacher, Conrad, & Moroye 2013). This study seeks to ignite that conversation. It has often been said that students today cover a lot of material, but few ever gain a true understanding of the material (Gardner, 1993; Starko, 2013). Developing a deep understanding of information is crucial to
fostering a rich learning process. Allowing students the opportunity to apply creativity strengthens understanding. Starko (2013) summarizes this point well:

Students develop understanding by applying content in diverse ways and multiple settings, acting flexibly with what they know. When we ask students to use the content in diverse ways—to think and create with what they know—we not only have a glimpse into their level of understanding, but we develop it as well. Creative applications of core content are among teachers’ most powerful tools in building students’ understanding. (p.7)

Second, finding time to cultivate creativity in students in public school settings given the “academic” demands of the current educational climate is a feat all of its own. It would seem beneficial to study exemplary classroom teachers who have found a way to balance the state and district pressures with their desires to foster creativity in students. Simply sharing their stories will create an awareness, which in turn has the potential to serve as a catalyst for further research studies.

Third, while in the past few decades a great deal of work has been to further our understanding of creativity, there have been a very limited number of studies completed that actually study teachers who cultivate creativity through their approach to classroom teaching. Also noteworthy is, much of the work that has been done on creativity focuses on “extreme forms of creative accomplishment” rather than the more typical, everyday “little c” creativity (Feldman & Benjamin, 2006, p. 329). To date, there are no educational criticism and connoisseurship studies that aim to shed light on teaching for creativity.

Fourth, this research study is unique in that I will seek to shed light on teachers who cultivate creativity through the aesthetic learning experiences they provide. I will use a theoretical framework that highlights specific themes within aesthetic learning
experiences that are believed to help facilitate the natural process of creativity. These themes include connections, risk-taking, imagination, sensory experience, perpectivity, and active engagement. This will be addressed in greater detail in Chapter Three.

Lastly, globalization is a significant reality. In the foreseeable future, our world and the ways in which we access and share knowledge will continue to evolve at an alarming rate. With this, complex issues will arise—issues that will need fresh, innovative eyes that can develop creative solutions. Our society’s ability to keep pace with the rest of the world ultimately depends on the quality of our ideas and the solutions we can generate. It turns out that real life is not a multiple-choice test with pre-generated answers. If our schools exist to prepare our youth for the world, our schools should reflect the change persisting throughout the world. Real life is spontaneous and authentic. For successful navigation, one ought to arrive prepared with a mind bursting with creativity.

**Research Questions**

The purpose of this study is to examine the practice of teaching for four public elementary teachers who have been identified as teachers who work toward cultivating creativity and innovation in their students. Four questions guide this study. An explanation of each question follows.

1. *What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students?*

2. *How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students?*
3. How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students?

4. What is the educational significance of these ideas and practices for students, teachers, and administrators?

Question 1: What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students?

“Intentions” refers to the teachers’ stated or unstated goals for his/her students. The teacher’s intentions, teaching style, and/or classroom climate will be analyzed in hopes of better understanding their practice. “Creative habits of mind” will be defined in terms of Claxton, Edwards, & Scale-Constantinou’s (2006) work in which they highlight six prevailing habits of mind present in creative individuals. They include curiosity, resilience, experimenting, attentiveness, thoughtfulness, and environment-setting. The six identified creative habits of mind will be more thoroughly addressed in the theoretical framework section of this paper.

The teachers participating in this research study were selected based on their superior ability to create a classroom climate that allows for the development of creative and innovative thought processes in elementary-aged students. I contacted six public elementary school sites that emphasize creativity and innovation in the classroom as exhibited in their school-wide mission statement. Three of these schools sites were willing to participate in the study. These school sites are located across Denver while one is located in San Diego. I then asked principals to identify two classroom teachers in Kindergarten through fifth grade, who demonstrate a unique ability to cultivate creativity.
and innovation in their students. The first four teachers to respond to my initial email inquiry were selected as the participants for this study.

Question 2: How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students?

The aim of this research question is to better understand how the physical space of the classroom, as organized by the teacher, helps aide in the development of creativity in students. That is, does the organization of the physical space help foster creativity in the learners, or does it help to make the educator more creative and innovative in nature? More specifically, I will be observing subtleties in the classroom environment such as furniture arrangement, wall decor, student access to materials, colors, music, aromas, and any other physical aspects that add to the aesthetic experience of the classroom. My hope is to interpret the role the physical space plays in fostering creativity while also closely examining the level of attention teachers devote to the importance of the classroom aesthetics.

Question 3: How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students?

“Pedagogical approach” refers to the teacher’s approach to instructional theory or more simply stated, the teacher’s approach to teaching. Pedagogy often refers to “how” the students learn. While observing the four exemplary teachers, I will attend to their pedagogical teaching methods and strategies. On the most basic level, I will observe the presence of collaborative group learning, interactive teaching methods, classroom discussions, problem solving opportunities, simulations, presentations, and all other teaching strategies that play a hand in constructing each teacher’s personal pedagogy. On
a deeper level, as suggested by Eisner (1998), I will seek to discern the “personal signature” of each teacher and their work (p. 79).

Question 4: What is the educational significance of these ideas and practices for students, teachers, and administrators?

Our world is changing quickly and our classrooms must find ways to reflect and embrace this rapid growth. Ken Robinson (2011) argues that the only way to meet the challenges of our increasingly complex world is to nurture the single greatest gift of human intelligence; that is, creativity. By attending closely to the subtleties that exist in the teaching practices of four talented elementary educators who cultivate creativity, I hope to find commonalities that are worthy of additional research and possibly even replication. I hope to shed light on what creative teaching and learning looks like and how it is successfully administered.

Theoretical Framework

As I stated previously, a lot of work has been done on creativity in the past few decades; however, a great deal of work remains to be done if we are to thoroughly understand its potential impact, benefits, and application. I believe this comprehensive understanding begins by looking at creativity through additional lens. My hope is that the theoretical and conceptual frameworks, by providing a relatively new perspective on the topic, will significantly aid in our understanding of teaching for creativity. They will provide a new lens with which to view creativity in the classroom.

First, it is essential that I clearly articulate how the term “creativity” is being applied to this research study. It is important to note that I am mostly concerned with creativity in our daily lives, or as Csikszentmihalyi refers to it “Little c” creativity (1996).
Along similar sentiments, it should be noted that as a researcher and practitioner, I believe creativity can be present in all subjects, and that all individuals are capable of displaying it at some level. I will examine creativity as the presence of critical problem solving and innovation with the construction of new meaning. With that being said, for the purposes of this research study, I will not explicitly define creativity for fear of the definition becoming too limiting. As will become more apparent in the literature review of this paper, creativity is a complex, and often nebulous term, particularly when one considers the dramatic differences between big C, eminent creativity and little c, everyday creativity. In addition, when working with a population of young learners, it seems unjust to define creativity in terms a common approach, which is to say that creativity is the process of developing solutions that have value and that are novel and original. The application of novelty looks very different for young learners than it does for adults, particularly for those adults that are immersed in a creative field.

In the summer of 2011, I enrolled in a summer course at the Aesthetic Education Institute of Colorado, which is now known as Think 360 Arts for Learning. Think 360 serves as a “resource for teacher professional development, a liaison between schools and artists, and a clearinghouse of best practices and research in arts integration” (Think 360 Arts, n.d.). Think 360 focuses its work on cultivating and sustaining the integration of arts in education.

During the Think 360 summer course, which is now referred to as the Institute for Creative Teaching, I was first introduced to the concept of CRISPA as Dr. Bruce Uhrmacher of the University of Denver presented it within a professional development training. Uhrmacher and fellow researcher, Christy Moroye, compared data collected at
the Institute for Creative Teaching with Dewey’s ideas on aesthetics and derived six
themes that encapsulate teaching with creativity and, more generally, with aesthetic
education in mind (Moroye & Uhrmacher, 2010). These six themes include connections,
risk-taking, imagination, sensory experiences, perceptivity, and active engagement,
which when referred to in its most holistic form, will be referred to as CRISPA
henceforth.

*Connections* refer to the way in which an individual interacts with the learning
environment (Moroye & Uhrmacher, 2010). The way in which the individual connects
with the learning experience is personal and therefore unique to each individual.
Connections can fall into one of four categories including intellectual, emotional,
sensorial, or communicative (Csikszentmihalyi & Robinson, 1990).

The next theme, *risk-taking*, refers to the opportunities individuals are given to
step out of their comfort zone, to try something new (Moroye & Uhrmacher, 2010). Risk-
taking, much like connections, holds a very personal context and therefore no two
individual’s “risks” look identical in nature. Risks can vary in perceived size, but all risks
should be practiced in a safe environment and should lead to the general reward of
learning something new about oneself or an object of study (Moroye & Uhrmacher,
2010).

*Imagination* refers to an “internal manipulation of ideas” and may be exhibited in
a number of ways: Imagination may be intuitive, in which a person has a sudden rush of
insight; fanciful, in which a person combines unexpected elements such as a talking
clock; and interactive, in which a person works with materials to yield a product.
(Moroye & Uhrmacher, 2010, p. 102). It is important to note that, for the purposes of this
paper, a clear delineation between imagination and creativity exists. Imagination is the internal thought process while creativity is the external product derived from the imagination.

The next theme, *sensory experience*, occurs when “at least one person” and a “sensory interaction with an object” takes place (Moroye & Uhrmacher, 2010). The stated “sensory interaction with an object” includes any experience in which the senses are heightened and more alive. It is argued that an aesthetic experience depends on a sensory experience.

*Perceptivity* refers to a “deepened sensory experience” which allows the individual to see the distinct subtleties (Moroye & Uhrmacher, 2010). An example of perceptivity might include asking an individual to examine a blade of grass for an extended period of time with the hope that the individual begins to see subtleties that others do not routinely see.

Lastly, *active engagement* refers to the way in which the individual is engaged with the learning opportunity. During active engagement, the learning opportunity is often participatory and the individual plays a crucial role in the learning process. Moroye and Uhrmacher (2010) argue that active engagement might include the act of being “physically active, intellectually creating meaning, or making choices about how to represent their knowledge” (p.102).

Moroye and Uhrmacher (2010) argue that learning experiences have the potential to be “ordinary or extraordinary,” and when the six categories of CRISPA are present, the chances of a learning experience becoming extraordinary is increased. An extraordinary learning experience provides an opportunity for the learner to have an aesthetic
experience, which in turn, encourages creativity (p. 101). As I previously stated, I will use CRISPA as a framework to guide my data collection and analysis. This will be explored in greater detail in the conceptual framework section that follows.

I will also apply Claxton, Edwards, & Scale-Constantinou’s (2006) work on developing creative habits of mind in students. Claxton et al. (2006), under the acronym of CREATE, outline six prevailing habits of mind present in creative individuals. These include curiosity, resilience, experimenting, attentiveness, thoughtfulness, and environment/setting. Curiosity is a necessary and crucial component to any creative process. Without curiosity, new ideas cannot be generated.” The processes of living with the question, coming to know it better, and gradually seeing it more clearly, are all part of creativity” (Claxton et al., 2006, p. 5). Generating and developing creative thoughts is a process, sometimes a very long one that requires a great deal of patience. Therefore, resilience is an essential characteristic for any individual to see success in creativity.

“That ability to tolerate confusion and frustration, to relish a challenge, and not to give up prematurely, has to be a core attribute of creative people” (p. 5). Creative people also have a knack for experimenting. They can often be seen tinkering with different possibilities and looking for new angles (Claxton et al., 2006). The ability to experiment and ask “what if” is an essential piece of the puzzle that is creativity. Attentiveness is another habit of mind of creative individuals generally possess. In order to successfully create, one must have the ability to concentrate on a task for an extended period of time. Claxton et al. (2006) describe attentiveness by stating, “creative people seem to have a propensity for intense, effortless concentration” (p. 6). Creative individuals also exhibit a genuine thoughtfulness in regards to their work in the creative process. A variety of forms
of inward thoughtfulness that creative individuals may display include “pondering over questions and possibilities,” “thinking carefully and methodically,” and “being sensitive to that inner sense of rightness” (p. 6). Lastly, creative individuals tend to be aware of the environment/setting in which they are most productive, creatively speaking. It is important to note that these creative habits of mind are not skills that can be learned overnight; instead, they are ingrained ways of thinking, which require being present and practiced in the small, day to day routine.

In terms of the bigger picture of this research study, CRISPA will help equip me to answer the question- how do teachers cultivate creativity? I will then use CREATE to aid in answering the question- what are teachers emphasizing when cultivating creativity? Or, to put it differently, How does the presence of the six elements of CRISPA help teachers cultivate creativity in terms of the six creative habits of mind present in CREATE? I will study the intersection of these two frameworks through the conceptual framework proposed below.

**Conceptual Framework**

As I stated previously, a lot of work has been done on creativity in the past few decades; however, a great deal of work remains to be done if we are to thoroughly understand its potential impact, benefits, and application. I believe this comprehensive understanding begins by looking at creativity through additional lens. My hope is that the conceptual framework, by providing a relatively new perspective on the topic, will significantly aid in our understanding of teaching for creativity. It will provide a new lens with which to view creativity in the classroom.
I will present my analysis in Chapter Five using the conceptual framework I developed, which is pictured below. This framework exists to highlight the intersection between CRISPA and the creative habits of mind, or CREATE that I observed throughout this research study. I will respond to three of the research questions using this framework. My hope is that this conceptual framework will help bring greater awareness to the interplay of the two theories while also demonstrating the potential for increased understanding of what cultivating creativity in an elementary classroom looks like.

Conceptual Framework

Figure 1: Conceptual Framework
Overview of Methodology: Educational Criticism and Connoisseurship

When engaging in a dissertation that seeks to shed light on the presence of creativity in the classroom, it seems necessary and optimal to use a methodology that finds its roots in the arts. Eisner advocates this point clearly when he argues:

“… The forms used in conventional approaches to education evaluation have a set of profound consequences on the conduct and character of schooling in the United States. Unless those forms can be expanded so that they attend to qualities of education life relevant to the arts, it is not likely that the arts will secure a meaningful place in American schools” (Eisner, 1976, p. 212).

In this study, I utilize the research method of educational connoisseurship and criticism (henceforth referred to as educational criticism). Educational criticism sits under the larger umbrella of arts based research, which finds its roots in aesthetic representation. Elliot Eisner developed educational criticism, a qualitative research method, with the goal of improving education (1998). In its most simple form, connoisseurship is the art of appreciation while criticism is the art of disclosure (Eisner, 1991). I believe Educational Criticism and Connoisseurship aligns well with the focus of my research as it will allow me to artistically capture the essence of the classroom through rich description. As Eisner states, “to develop connoisseurship, one must have a desire to see subtleties” (2002, p. 216).

Choosing Participating Schools and Identifying Teachers

In this research study I investigated the teaching practices of four elementary educators who are said to cultivate creativity in their students. The teachers participating in this research study were selected based on their superior ability to create a classroom climate that allows for the development of creative and innovative thought processes in elementary-aged students. I identified and contacted five public elementary schools in the
Denver area and one in the San Diego area that have a strong emphasis on developing creativity in students as was apparent in their mission statement and/or curricular approaches. After receiving clearance from the University of Denver’s IRB, I contacted site administrators and began a teacher referral process in which I asked administrators to identify exemplary elementary educators in grades Kindergarten through fifth grade at their school site who demonstrated a unique ability to cultivate creativity and innovation in their students. The first four teachers to respond were selected as the participants for this study. In the end, I was left with three school sites, two in the Denver metro area and one in the San Diego area. The school sites and the participants are described in greater detail in Chapter Three.

Data Collection

To gain a thorough understanding of the participants’ intentions, I conducted a series of interviews with each participant. Seidman (2012) reminds us that “At the root of in-depth interviewing is an interest in understanding the lived experience of other people and the meaning they make of that experience” (p. 9). Each interview lasted approximately thirty minutes to one hour in duration, depending upon the teachers’ availability. During these interviews, teachers had the opportunity to share information about their background in education, pedagogical teaching beliefs, and general feelings toward the role of creativity in their lives and in their classrooms. I audio recorded these interviews and spent numerous hours transcribing them in hopes that time spent repeatedly hearing the participants’ responses would allow me to be more present in the data. I also spent approximately two weeks observing in each participant’s classroom. During the classroom observations, I took elaborate notes, drew diagrams of the
classroom setting, took photographs of the space, and obtained access to the willing participants’ lesson plans, project descriptions, year-long curriculum maps, as well as project specific “mind mapping,” a process that allows teachers to organize curricular units on paper.

**Data Analysis**

I analyzed all interview and observational data by crafting profiles (Seidman, 2012) for each participant, which were composed of meaningful text and vignettes. Garman (1994) reminds us that creating a profile for research participants can present an aesthetic component in reporting, enriching the description and perhaps “touching the spirit” of the researcher and reader alike (Seidman, 2012, p. 123). I then searched for connective threads within the participant profiles, which served to organize my narration of data collection.

Detailed descriptions of each teacher’s practice are presented in Chapter Four through a combination of short vignettes and direct teacher quotes that have been woven together to paint an accurate and artistic representation of the participants and their classroom environments. In Chapter Five, the themes are explored in greater depth as I connect the teacher descriptions and interpretations to the related literature and the conceptual framework. I then discuss emergent themes for the participants and the cultivation of creativity in the public elementary classroom. I also discuss their significance to this study and to the larger field of teaching for creativity and innovation.

**Conclusion**

I believe cultivating creativity in students is paramount to the success of our schools and our educational system. In order to meet the needs of our rapidly changing
world, our educational system and our classrooms must evolve quickly to produce learners that can solve tomorrow’s problems in creative and innovative ways. By studying the practice of four teachers who cultivate creativity in students, I hope to extract successful teaching strategies that can be replicated by other public school teachers seeking to enhance their practice and their students learning. Above all else, I hope to strengthen our society’s growing awareness about teaching for creativity.
Chapter Two: Literature Review

Overview

In this chapter, I present a variety of definitions, theories, and models of creativity. I then turn to a more specific application of creativity as I discuss current research on creativity in education, and specifically the cultivation of creativity and the arts during a time of accountability and standards. I then discuss two curricular approaches present in this study, project-based learning and arts-integration. It should be noted that in no way is this literature review exhaustive. The research that has been completed on creativity to date is broad and comprehensive in scope. Addressing its many complexities is a task far too great for a literature review such as this. Instead, I offer the reader a condensed understanding of creativity - its origin, definitions, theories, and models - before moving to a more thorough explanation of its application to the classroom.

Defining Creativity

Creativity is widely referenced, researched, and studied, and it is also widely defined (Craft, 2003; Parkhurst, 1999; Welsch, 1981). Its application is studied in a variety of domains and by a plethora of researchers, and it is defined in a multitude of ways and with a multitude of theories. The Latin root of the words “create” and “creativity” is creare, which translates to “to make.” While the etymology of the word
certainly offers a clear, reductionist understanding, examining several popular definitions of creativity will contribute to a more comprehensive understanding of the term for the purposes of this research study.

Some argue that J.P. Guilford's presidential speech at the American Psychological Association in 1950, was the impetus for modern interest in creativity (Piirto, 2004). He developed the Structure of Intellect model, which, in its later form, stated that there are 180 forms of measurable intelligence. His research efforts focused on the differences between convergent and divergent thinking and he argued that “creativity is not any one thing,” but rather “many things that take many forms” (1970, p. 157).

E. Paul Torrance (1966), an early leading researcher on creativity and the creator of the *Torrance Tests of Creative Thinking*, defined creativity as:

The process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses about the deficiencies; testing and retesting these hypotheses and possibly modifying and retesting them; and finally communicating the results. (p. 663-664)

Robert Sternberg (1988) defines creativity as “the ability to produce work that is both novel (i.e. original and unexpected) and appropriate (i.e., useful, adaptive concerning task constraints)” (p. 3). Amabile (1996) suggests that a child’s creativity in any domain depends on three things: “skill in the domain, creative working and thinking skills, and intrinsic motivation” (p. 25). She also believes that “some elements of creativity are inborn; some depend on learning and experience; and some depend on social environment” (p. 25).
Others define creativity by clarifying terms that are often used interchangeably. These include creativity, imagination and innovation. For example, Alexander (2010) states “...[imagination] can be perceived as the engine that ignites thinking and creative thought and the latter [creativity] as the locomotive that pulls the imaginative wagons and turns them into finished and elaborated products” (p. 27).

Ken Robinson (2011), a well-known and highly respected author and orator on the arts in education, compares imagination, creativity and innovation on a sort of continuum. He summarizes by stating:

Imagination is the ability to bring to mind things that are not present to our senses. Creativity is a step further on from imagination… Creativity involves putting your imagination to work. In a sense, creativity is applied imagination. Innovation is the practice of putting new ideas into practice. Innovation is applied creativity. (p. 141-142)

At this point, it should become obvious to the reader that a consensus has not been reached; creativity is widely defined. The lack of consensus is problematic and limiting for a variety of reasons; however, Welsch (1981) highlights perhaps the most pressing limitation by pointing out that the widespread lack of agreement about what creativity means causes educators to be “unable to discern what is creative and what is not.” And, if teachers “cannot identify creativity in the behavior of students, they cannot consciously nurture… its development” (p. 2).

**Theories of Creativity**

Just as the definitions of creativity are vast, so too, are the existing theories of creativity. It is important to note that creativity was initially viewed as synonymous with madness or insanity, and because of this, creativity was an outlier resting in the world of
psychology for quite some time (Piirto, 2004). For ease of comprehension, I have
organized the theories being explored into specific fields of study: developmental
psychology, social psychology, and cognitive psychology.

In the world of developmental psychology, Howard Gruber and Paul Barret
(1974) developed “the evolving systems of man theory” in which they related the
psychological development of creative people with their surroundings. Gruber also
explored pluralism, networks of enterprise, uniqueness, and evolving belief systems.
Feldman and Goldsmith (1986) studied six child prodigies- children who had adult
achievement in a domain before the age of 10- with the hope of deducing how ability
develops. Feldman spoke of “transformations” as he stated that creativity is “a special
form of development that yields a product that is new and valuable not only to an
individual but also to a field” (Piirto, 2004, p.14). Joseph Renzulli (1978, 1992)
developed a visual model-a Venn Diagram-to define the three characteristic that he
believed all gifted learners possessed. They are above average intelligence, creativity, and
task commitment.

Rather than focusing on development, social psychologists give deliberate
attention to the creative individual’s environmental influences. In Creativity (1996), with
the hope of more deeply understanding the creative process, Csikszentmihalyi studied 91
highly creative individuals who had transformed their field or domain in some way
(1996). Csikszentmihalyi categorizes the highly creative individual who has achieved
eminence in his/her field or domain with the terminology “Big C.” The term “Little c”
then refers to creativity that encompasses our daily lives (1996). Csikszentmihalyi’s
approach to creativity-in which he saw “creativity not as a characteristic of particular people or products, but as an interaction among person, product, and environment”-transformed and influenced how the field of creativity was approached (Starko, 2013, p. 76).

Beghetto and Kaufman (2007) expanded on this work and developed a “4 C model” that includes the addition of the “Mini-c”, which they define as “the novel and personally meaningful interpretation of experiences, actions and events” (p. 3). Also proposed by Beghetto and Kaufman (2007) is the concept of “Pro-c” which was created in hopes of classifying creative individuals who have not yet reached the status of eminent, or in other words, individuals that possess a professional expertise.

Cognitive psychologists try to shed light on creativity by attending to the inner workings of the mind. Howard Gardner (1985), known for his work on the multiple intelligences, proposes a theory of development of creative individuals, which accounts for three crucial relationships including 1) the creative child and who he/she becomes 2) the creative person and others 3) the creative person and the work he/she does (2011). Gardner (1985) sees the ability for creativity to be present in each of the eight intelligences he proposes. Sternberg (1988) also notes the importance of the presence of creativity across each aspect of his proposed model; however, in his model he suggests three types of intelligence- creative, analytic and practical.

As previously mentioned, Guilford (1959) developed the Structure of Intellect (SOI) model which contained 180 components and included divergent thinking as one of
the basic processes of intelligence. The SOI model allowed the strengths of the creative person to be considered.

**Models of Creativity**

The Osborn-Parnes model of Creative Problem Solving (CPS) was originally developed by Osborn (1953), but has since been repeatedly revised by a number of theorists including Parnes (1981), and Isaken and Treffinger (1985). CPS was developed as a framework meant to guide the creative process by “encouraging whole-brain, iterative thinking in the most effect sequence” (Isaken and Treffinger, 1985, p. 5). Pictured below is the most recent CPS model, Version 6.1.

![CPS Framework](image)

**Figure 2: CPS Framework**

Starko (2013) suggests the investigation of authentic problems, termed *Problem Finding*, as an effective model to guide the process of teaching for creativity. She also argues that not only do our students need exposure to authentic problem solving, but they
also need practice solving varied types of problems. Getzels (1987) categorizes problems in three ways. In a “Type 1” problem there is a “known formulation, a known method of solution, and a solution known to others but not to the problem solver” (p.142). Students in an algebra class might be exposed to known formula and then be asked to apply it to a problem provided by their teacher. Type 1 problems genuinely require regurgitation and memorization. The reality is that in today’s classrooms, the majority of time in school is spent solving Type 1 problems. “Type 2” problems consist of a “presented problem, but the method of solution is not known to the problem solver” (p. 35). Students may be presented with a problem and be asked to solve it prior to being taught a common, known solution to the problem. It is believed that Type 2 problems encourage analytical skills. Lastly, a Type 3 problem does not have a presented problem. Instead, the problem must be discovered and there may be no known solution to anyone. Getzels argues that Type 3 problems are the only type of problem that encourage problem recognition. Starko (2013) contends that if we are to prepare our students for the futures that await them, we must provide them with more authentic opportunities to grapple with Type 2 and Type 3 problems.

**Pragmatic Approaches to Creativity**

Although some researchers (Sternberg, 1988; Lubart 1994) argue its damaging effects, many researchers have attempted to summarize their approach to cultivating creativity through a pragmatic approach (De Bono, 1989, 1995; Osborn, 1953; Gordon, 1961). Sternberg (1988) cites these researchers as being more concerned with practice than theory and not giving ample attention to testing the validity of their work.
Nonetheless, many of these pragmatic approaches have seen great commercial success.

For example, Edward De Bono proposed many thinking “tools” geared toward improving lateral thinking and enhancing creativity, but perhaps his most popular was the development of the “six thinking hats” (De Bono, 1989) in which the “thinker” metaphorically alternates between six different hats, or thinking strategies. Gordon (1961), explores an additional pragmatic approach to developing creativity, which he has labeled synectics. Synectics is a process of included individuals in a problem-stating, problem-solving group focused on enhancing creativity through the use of metaphors and play.

**Teaching for Creativity vs. Teaching Creatively**

Many researchers (Whitman, 1991; Sawyer, 2004; Woods and Jeffery, 1996; Starko, 2013) discuss the concepts of creative teaching and teaching for creativity. While some (Jeffery and Craft, 2004) argue that no distinction is necessary between the two terms as teaching creatively is implied in teaching for creativity, I believe the distinction is crucial for true understanding and for its successful application in the classroom setting. After all, teaching *for* creativity is concerned with cultivating creativity in students and it is quite possible to teach creatively without actually cultivating creativity in students. Lessons can be creatively planned and creatively orchestrated without actually fostering creativity in the learners. In order to discern between the two concepts, the underlying question that should be routinely posed is *who is being creative?*. Teaching creatively requires teachers to be creative, but not necessarily the students. Teaching *for* creativity on the other hand, requires creativity on both ends. For the
purposes of this study, I have chosen to focus on the act of cultivating creativity, or teaching for creativity.

In the process of teaching for creativity, student and teacher roles dramatically shift from roles typically found in more traditional learning environments. When teachers teach for creativity, students become active facilitators of their own learning experience. Or to put it differently, they become “problem solvers and communicators rather than passive acquirers of information” (Starko, 2013, p. 19).

Robinson (2011) contends that there are three related tasks in teaching for creativity: encouraging, identifying, and fostering. He argues that encouraging is the first step in teaching for creativity, as many people do not believe they hold the potential to be creative. The second step is to help students identify their creative strengths and areas of interest. Lastly, Robinson suggests that developing creativity is the final phase in teaching for creativity. In this stage, teachers must:

…Promote experiment and inquiry, encourage generative thought free from immediate criticism, encourage the expression of personal ideas and feelings, convey an understanding of phases in creative work and the need for time, develop an awareness of the roles of intuition and aesthetic processes, encourage students to play with ideas, and facilitate critical evaluation of ideas. (p. 270)

Cultivating Creativity in Schools: Introduction

The roots of creativity run far and wide; even early philosophers such as Plato and Aristotle chimed in on the discussions regarding creativity in education (Starko, 2013). One of the earliest models of creativity was created when John Dewey (1920) constructed a five step model for problem solving which consisted of 1) a difficulty is felt 2) the difficulty is located and defined 3) possible solutions are considered 4) consequences of
these solutions are weighed and 5) one of the solutions is accepted (Starko, 2013). Dewey (1934) also advanced the notion that the arts and creativity are deeply connected to all domains of human knowledge, including teaching and learning.

Starko (2013) believes there are three crucial things teachers can do to help promote creativity in the classroom. They are, “teach the skills and attitudes of creativity, teach the creative methods of the disciplines, and develop a creative-friendly classroom” (p. 138). Each of these topics will be discussed in greater detail in the pages that follow.

**Teaching for Creativity in a Time of Standards.**

Although the term *creativity* has remained relatively unchanged throughout the past century, its application to educational settings has morphed a great deal. Perhaps the most noteworthy trend in the 21st century world of education is the heightened emphasis on high stakes testing and the inevitable reaction of teaching strictly to state and national standards, or more simply put- convergent thinking (Hollingsworth & Gallego, 2007).

David C. Berliner (2012) powerfully argues that the result of a national focus on high-stakes testing has inevitably led to a *Creaticide*, which he defines as a “national design to kill literacy, scientific, and mathematical creativity in the school-age population of the United States of America, particularly among impoverished youth” (p. 79). He contends that when schools and teachers are rewarded or punished based on student’s scores on high-stakes tests, the logical teacher responses naturally include the following: significant narrowing of the curriculum and “gaming the system” (p. 80). Berliner points out that the average amount of class time devoted to mathematics and reading has increased dramatically since the onset of the No Child Left Behind (NCLB) act in 2002.
Berliner argues that the increased time spent on mathematics and reading has had a negative impact as it leads to poor time management, too much drill and kill repetition, and a loss of interest for students. Perhaps more importantly, he points out that the increased time allotment to reading and mathematics, means a “time theft” has occurred in other subjects including physical education, science, social studies, and in the arts and music. It is this narrowing of the curriculum that he refers to as *Creaticide by Design*.

As Cloninger & Mengert (2010) illustrate, this standardized approach to thinking, learning and evaluating deeply impacts how creativity is addressed in our schools. They argue that we have once again placed the emphasis on the “outcome measures” of schooling and convergent thinking, which inevitably has deep ramifications for curriculum, pedagogy, and administration in schools and is probably the biggest obstacle to the development of creativity in the classroom (p. 11).

Robinson (2001) parallels this sentiment when he states:

I am not arguing against academic standards in themselves nor would I celebrate a decline in them. My concern is with the preoccupation with these standards to the exclusion of everything else. I am not arguing against formal instruction. I am not appealing for a wider use of so-called progressive teaching methods. Both have an important place in teaching. Some of these methods do put a strong emphasis on creativity: some do not. Some of this work is excellent: some is not. A common failing is the tendency to misunderstand the nature of creative activity not only in education but more generally. Too often what passes for creativity has been an undisciplined and undemanding process. (p. 200)

Many educators express concerns about expansive standards that must be covered with limited time to teach them. They ask how they could ever “fit creativity in”? To this point, Starko (2013) argues that creativity is not an “additional curriculum,” but rather, a
“set of strategies for designing curriculum so that both content learning and creative thinking are enhanced” (p. 21).

In 2009, governors and state commissioners of education with membership in either the National Governors Association Center for Best Practices (NGA) or in the Council of Chief State School Officers (CCSSS) convened to develop the Common Core Standards, a state-led initiative designed to standardize learning goals across the United States, creating a common language and consistent expectations (Common Core State Standards Initiative, 2015).

A report, *Benchmarking for Success: Ensuring U.S. Students Receive a World-Class Education*, was issued late in 2008, recommending states “upgrade state standards by adopting a common core of internationally benchmarked standards in math and language arts for grades K-12 to ensure that students are equipped with the necessary knowledge and skills to be globally competitive” (Jerald, C. D., 2008). As of June 2014, 43 states, four territories, and the District of Columbia had adopted and implemented the Common Core State Standards according to their respective timelines (Common Core State Standards Initiative, 2015).

The intent of the Common Core State Standards Initiative is to create a common language and standardized goals. It is, therefore, reasonable to assume that any new curriculum will inevitably become geared toward the Common Core standards, with a heavy focus in literacy and math, where the standards are already in place. At this point, it seems necessary to ask, will creativity and the arts in general take a back seat? However, when one looks closely, it becomes more apparent that the Common Core
Standards are not prescriptive. They do not tell teachers how to teach, they are not pitched as the whole curriculum, and they do not tell students what they must do with the content or knowledge application (Starko, 2012). As the Common Core State Standards Initiative will undoubtedly change the educational landscape of the future, I would argue that educators ought to seize the opportunity to help mold this dramatic change in a positive, holistic, and innovative matter that can revive creative and critical thinking skills.

**Practical Classroom Application.**

The foundation for understanding teaching for creativity and its importance has been set, now we must explore what can be done inside the walls of the classroom. While the task seems large and somewhat non-navigable, be assured that educators, with the proper knowledge and tools, can positively impact the acquisition and application of creativity in the classroom setting. Amabile (1989) states: “Some elements of creativity are inborn; some depend on learning and experience; and some depend on social environment” (p. x). Let us explore what learning opportunities and experiences researchers suggest in promoting creativity in students. What does a curriculum that is effective in cultivating creativity look like?

Allowing time for imaginative play has been a long-standing tradition in most early childhood classrooms across the country since the development of the first Kindergarten classroom. Not surprisingly, increased opportunities for imaginative play have also been linked to increased creativity production. Piirto (2004) contends that “play
is the *work* of childhood” and that by offering regular opportunities for imaginative play during childhood, the path to adult creativity is strongly forged (p. 102).

Along those same sentiments, Brown (2009), a leading researcher on the topic of play, argues that “play lies at the core of creativity and innovation” and that its presence is vital to becoming a fulfilled human being, sustaining social relationships, and being a creative, innovative person (p. 5). Although he is hesitant to define play for fear of simplifying its incredibly intricate core, Brown also understands others’ needs to have a concrete grasp of what it means to “play”. Because of this, Brown outlines seven Properties of Play. They include:

- *Apparently Purposeless*: Play is “done for its own sake,” not for reasons of practicality.
- *Voluntary*: We engage in play on our own terms.
- *Inherent Attraction*: Play is fun and it has the ability to make you feel good.
- *Freedom from time*: There are no time limitations.
- *Diminished Consciousness of Self*: While immersed in play, “we stop worrying about whether we look good or awkward, smart or stupid.” Instead, we are in the moment, experiencing “flow.”
- *Improvisational Potential*: When engaged in play, we are “open to serendipity, to chance.”
- *Continuation Desire*: Simply put, “we desire to keep doing it.” (p. 17)

Scott Eberle (2014), vice president of interpretation at the Strong National Museum of Play, provides a framework for play, outlining six steps that he believes most individuals go through while engaged in the process of play. These include anticipation, surprise, pleasure, understanding, strength, and poise. He contends that the process is comparable to a cyclical wheel, and that once an individual reaches “poise,” they then generate a new “anticipation,” which starts the process all over again.
Brown shows the significance of the connection between play and creativity and innovation when he shares his professional experiences in which leaders of large corporations have sought out his expertise in accurately identifying candidates who exhibit the ability to play. These leaders are in search of candidates with fresh, innovative ideas and as Brown argues, “Play is the mother of invention” (p. 135). He states:

They want to talk about this because many corporations rightly identify play as their most precious commodity. Production matters now, but creativity is the source of all growth- the products, new techniques, new services, and new solutions to old problems that mark the difference between a company that will thrive and one that will soon be deader than the eight-track tape. (p. 134)

Brown emphasizes that once kids enter school, the importance of play should not end as the presence of play is important for “growth, flexibility, and learning” (p. 99). However, he also acknowledges that this is not the reality of our classrooms today given the intense pressure to succeed. He cites No Child Left Behind as an example, stating its result is a “system in which students are provided a rote, skills-and-drills approach to education and ‘nonessential’ subjects like art and music are cut” (p. 99). He continues by once again highlighting the importance of play when he states:

The neuroscience of play has shown that this is the wrong approach, especially considering that students today will face work that requires much more initiative and creativity than the rote work this education approach was designed to prepare them for. In a sense, they are being prepared for twentieth-century work, assembly-line work, in which workers don’t have to be creative or smart-they just have to be able to put their assigned bolt in the assigned hole. (p. 99)

Simulation and role-play activities are often used in classrooms geared toward the cultivation of creativity. Brown (2014) connects simulation and role-play activities with play, citing their important role in making learning more enjoyable and engaging. He
states, “Learning itself is enhanced by play, as many teachers know—which is why classrooms often use role-play or simulation to teach a subject that is difficult or perceived to be boring.” (p. 100) Taylor (1998) echoes the importance of role-play and simulation activities as he cites its importance in promoting flexible thinking.

Divergent thinking strategies are often used in classrooms to help cultivate and support creativity production. The key components of divergent thinking include fluency of thought production, flexibility in thinking, originality in ideas, and elaboration of the ideas (Starko, 2013). Activities geared toward divergent thinking are often aimed at the fluency component as supported by researchers (MacKinnon, 1978; Parnes, 1967). Starko (2013) supports the idea of emphasizing fluency by highlighting the positive consequences when she states “The process of generating many ideas also encourages attitudes that are associated with creativity, experimenting with ideas in playful ways” (p. 146).

Building on Osborn’s CPS model, SCAMPER was developed by Eberle (1977, 1996) as a guide for teacher wanting to improve students’ divergent thinking. Its components are presented below along with guiding questions as listed by Starko (2013).

- **Substitute** (Ask: What other materials, approaches, or components could I use?)
- **Combine** (Ask: Can any parts be combined? If so, how?)
- **Adapt** (Ask: Can we change or imitate something that is similar to this?)
- **Modify** (Ask: Can we change an existing product to make it more successful?)
- **Put to other uses** (Ask: How can I use this in a new way?)
- **Eliminate** (Ask: What can be omitted?)
- **Rearrange or Reverse** (Ask: Can a different order or sequence be applied?)

The art of brainstorming, not evaluating any ideas until a number of them have been produced, is based on Osborn’s (1953) principle of deferred judgment. To ensure
the process of brainstorming will be a success in a given classroom environment, a
number of fundamental rules must first be established to help foster a safe classroom
atmosphere in which students feel comfortable taking risks. Starko (2013) highlights the
four cardinal rules of brainstorming as:

1. Criticism is ruled out. No person is to evaluate any idea until all ideas
   have been produced.
2. Freewheeling is welcomed. Way out notions are seen as stepping-stones
   that may lead to a workable idea.
3. Quantity is wanted. Quantity is not desired for its own sake, but because a
   large number of ideas seems more likely than a small number to yield a
   good idea.
4. Combination and improvement are sought. This rule is sometimes
   described as hitchhiking. It suggests that many good ideas can be found by
   building on or combining previous ideas. (p. 149)

Outside of the daily classroom curriculum, researchers point to steps educators
can take to more readily cultivate creativity in their students. Many of these tangible steps
are focused on the classroom climate as created by the teacher. For example, Cloninger &
Mengert (2010) argue that in order to teach for creativity, teachers must take time to
consider how creativity is expressed in their own lives. That is, if the teacher wishes to
cultivate creativity, the teacher must first embody creativity. We show others what we
value by our actions, and what teachers value can strongly influence the students they
teach. To cultivate creativity, we must walk the talk inside the classroom.

Habits and Dispositions.

Csikszentmihalyi (1996) sought to more thoroughly understand the creative
mentalities of highly creative individuals. He studied 91 highly creative individuals who
had transformed their field or domain in some way and sought to extract their common
characteristics. He concluded that highly creative individuals often possess the following
“habits of strength”- they make time for reflection and relaxation, control their own schedules, seek and practice harmony in their environment, they are in touch with their emotions, and they devote time to doing what they love.

Amabile (1989) states, “The greatest challenge for adults in nurturing children’s creativity is to help children find and develop the Creativity Intersection-the area where their talents, skills, and interests overlap” (p. 50). When the creativity intersection is found, motivation is at its peak. Motivation, specifically intrinsic motivation, is often seen as an essential precursor for the creative process to take place (Piirto, 2004; Amabile, 1989). Amabile emphasizes the importance of motivation when she states, “Talent, personality and skill tell us what a child can do; motivation tells us what that child will do” (p. x). The importance of intrinsic motivation and how to most appropriately foster it has been acknowledged by a number of psychologists (Pink, 2006, 2011; Dweck, 2006). Pink (2011) discusses the three essential aspects to nurturing intrinsic motivation. They are autonomy, mastery and purpose. Brophy (2013) discusses “motivation to learn,” which speaks to intrinsic motivation and mastery in the creative classroom. He argues that when students are motivated by the process of learning and by mastery of learning, they begin to value learning.

Ames and Archer (1988) also discuss motivation; however, they connect motivation to achievement goals, namely mastery goals and performance goals. In a mastery goal, the value is given to the process of learning and developing a new skill or understanding, while students working toward performance goals often demonstrate concern with being judged or evaluated, a desire to achieve success with little effort, and
they often focus on outperforming others rather than doing their best. They conclude that when students perceive a classroom and teacher focus on mastery goals over performance goals, they were more likely to report using effective learning strategies more frequently, they enjoy their classrooms more, and they prefer tasks that are challenging (Ames & Archer, 1988). The findings of Ames and Archer (1988) are supported by earlier works (Dweck, 1986, 1988; Elliott & Dweck, 1988; Nicholls, Patashnick, & Nolen, 1985) in which experimental studies suggest that students are more willing to engage in challenging tasks, exhibit positive feelings toward the situation, and demonstrate an “adaptive attributional pattern” when they adopt a mastery orientation (Ames & Archer, 1988, p. 261).

Amabile (1989) also discusses the importance of freedom in the creative individual’s life when she states: “Just as the creative person is open to experience, the freedom to choose and explore is characteristic of an environment that supports creativity” (Amabile, 1989). She continues by discussing other attributes of a free environment including, allowance for diversion, flexible reflection, and personal autonomy.

Research (Nieuwenhuizen & Groenewald, 2006) has also shown that risk-taking and experimentation can be attributes that are closely aligned with innovation. Risk-taking is a crucial component to an individual’s development of creativity and innovation as it paves the way for rich learning through problem solving and experimentation (Collins, Smith, & Hannon, 2006). Likewise, experimentation is a crucial component to
the development of creativity as it allows the individual to work through possible solutions in a non-threatening manner (Dyer, Gregersen, & Christensen, 2011).

Also noteworthy, is the correlation between creativity and happiness. Researchers (Cloninger & Mengert 2010; Csikszentmihalyi 1996; Maslow, 1970; Piirto 2004; Robinson 2011; Starko 2013) argue that creativity is a necessary ingredient for optimal happiness, or that it provides meaning in our lives.

**Classroom Environment.**

Starko (2013) presents her three keys to teaching for creativity. They include explicitly teaching students about creativity, teaching students how individuals are creative in the field they study, and lastly-developing a safe classroom atmosphere in which flexible thinking and authentic problem solving is welcomed and appreciated. Starko’s last point- developing a safe classroom atmosphere in which flexible thinking and authentic problem solving is welcomed and appreciated- is a resounding theme in the literature. Cloninger (2008) echoes these sentiments and argues that the first step in creating a safe classroom environment is to teach humility. He proposes that by working on humility, care, and receptivity to students, teachers can create classrooms that are safe and secure. When students feel that a classroom is safe and secure, they are more likely to take risks and engage in flexible thinking, which in turn promotes creativity.

The physical environment of the classroom has also been shown to have an effect on the production of creativity. Dubos (1971) argues that the “potentialities of human beings can become fully expressed only when the (physical) environment provides a wide
variety of experiences” as a “featureless environment” negatively affects both intellectual and emotional development (p. 339).

Also noteworthy, (Kaplan & Kaplan, 1989) suggest the process of creativity is enhanced when an individual is provided the opportunity to experience the restorative qualities of nature. These sentiments are echoed by Barron (1969) and MacKinnon (1962) as they contend that creative personalities are sensitive to rich sensory experiences, and that these rich sensory experiences may be more readily experienced in a natural environment.

In their study of the role of the physical environment in fostering creativity, McCoy and Evans (2002) found that “both furniture and visual detail were found to be highly correlated with creativity potential” (p. 415). They noted that creative potential was heightened when classroom furniture was used to promote overall comfort and social interaction. Also noteworthy, environments that were perceived as being “visually interesting” also promoted creativity potential, as was speculated by Amabile (1983), Guilford (1967), and Stein (1974). McCoy and Evans (2002) also found that “visually interesting” environments that offered “extended views” and contained great amounts of “natural materials” correlated with higher levels of creative production (p. 415).

Curricular Approaches.

A number of non-traditional curricular approaches exist, many of which are believed to enhance critical reasoning, flexible thinking, creativity, and innovation in students. While the list is too long to include and exhaustive summary of each approach, I will outline the approaches I encountered at the school sites that participated in this study.
These include the project-based learning model that was employed at Armstrong Elementary as well as the arts-integration model that was applied at The Learning Place. The third school site, Destination Innovation, utilized a unique and unconventional approach, earning “innovation status” from the state of Colorado. Because it is not a common curricular approach, and its application does it have to be isolated to promoting creativity, I have chosen to address the “innovation status” in Chapter Four with the introduction of Destination Innovation and Ms. Nunes.

**Project-Based Learning.**

While not all teachers are required to incorporate project-based learning into their curricular approach at Armstrong Elementary, it is a defining feature of the Sunset Cliffs school model of which they are a part, and its application was present in the two classrooms I observed. This will be addressed in greater detail in Chapter Four. For now, let us explore the world of project-based learning.

William Heard Kilpatrick (1918), a colleague and collaborator of John Dewey, first outlined “the project method” in his article, *The Project Method: The Use of the Purposeful Act in the Educative Process.* Project-based learning, or PBL, is a teaching method in which students actively explore authentic problems and challenges, often within an interdisciplinary context, in order to gain a rich understanding of the content. Projects are authentic from the core, involving students in the planning, design, decision-making, investigative activities, and the culminating event (Mergendoller & Thomas, 2001). According to the Buck Institute of Education (BIE), defining elements of project-based learning include significant content, 21st century competencies, in-depth student
inquiry, an open-ended driving question, student voice and choice throughout the project, critique and revision, and a public audience (Buck Institute for Education, n.d.). Other defining features include collaboration, reflection, teacher facilitation, authentic assessment, and authentic content. Barrow and Kelson (1995) outline five core goals of project-based learning. They include: 1) construct an extensive and flexible knowledge base; 2) develop effective problem-solving skills; 3) develop self-directed, lifelong learning skills; 4) become effective collaborators; and 5) become intrinsically motivated to learn.

Many researchers express difficulty in trying to define project-based learning as its application can differ a great deal from one setting to another. Thomas (2000) attempts to alleviate this confusion by responding to what a project must include in order to be labeled as project-based learning. He cites five criteria, which include centrality, driving question, constructive investigations, autonomy, and realism. These criteria are described below.

“Centrality: PBL projects are central, not peripheral to the curriculum. The projects are the curriculum.
Driving Question: PBL projects are focused on questions or problems that ‘drive’ students to encounter (and struggle with) the central concepts and principles of a discipline.
Constructive Investigations: Projects involve students in a constructive investigation.
Autonomy: Projects are student-driven to some significant degree.
Realism: Projects are realistic, not school-like. Projects embody characteristics that give them a feeling of authenticity to students” (p. 3-4).

In terms of academic achievement, the research suggests many schools implementing a project-based learning approach have shown significant academic gains (Thomas, 2000). Thomas reviews several research studies in which schools implementing
an expeditionary learning approach were studied. Expeditionary Learning is a PBL design that grew out of Outward Bound, an educational, adventure-based wilderness program. In the Expeditionary Learning approach, students investigate intellectual problems through project lasting approximately six to nine weeks. Campbell, Cousins, Farrell, Kamii, Lam, Rugen, & Udall (1996) posit that EL schools are a response “to the failure in public education today to engage students in their own quest for learning and to achieve their personal best” (p. 109).

Likewise, Hmelo-Silver (2004) found that students are more likely to develop metacognitive skills when engaged in problem-based learning than if they were learning in a more traditional environment. Nordstrom and Korpelenien (2011) posit that learning is strengthened when students discover concepts in a constructivist-oriented classroom such as a problem-based learning classroom. Fittingly, the project-based approach has been viewed as a precursor to the arts-integration movement, which I outline next.

Arts-Integration.

In 1931, Dewey responded to Kilpatrick’s article, “The Project Method” (1918). Dewey asserted that organizing the curriculum by subject or project would not resolve the curricular issues present in education. Instead, he argued for a learning process that would emphasize “the interrelation of subjects with one another” in hopes of increasing “both intellectual curiosity and understanding, while disclosing the world about us as a perennial source of esthetic delight” (Kliebard, 2004, p. 150).

The National Council of Teachers of English (NCTE) issued a report in 1936 titled A Correlated Curriculum (Weeks, 1936). The report, representing the work of 43
researchers, described a “democratic education that combined subject-specific learning with interdisciplinary and integrated options for learning at the secondary level” (Burnaford, Brown, Doherty, & McLaughlin, 2007, p. 2). Examples of correlations between English and other subject areas were presented. The report’s impact was felt most strongly years later when revisited by James Beane as he presented his position on the integration of the arts into the curriculum. Beane (1997) advocates for schools to implement a full integration model. He states:

Imagine for the moment that we are confronted with some problem or puzzling situation in our lives. How do we approach the situation? Do we stop and ask ourselves which part of the situation is language arts, or music, or mathematics, or history, or art? I don’t think so. Instead, we take on the problem or situation using whatever knowledge is appropriate or pertinent without regard for subject area lines. (Beane, 1997, p. 7)

While many arts-integration definitions exist, the difference amongst the definitions are generally slight. For example, Hardiman, Rinne, and Yarmolinskaya (2014) define arts-integration is the “infusion of visual and performing arts activities into the instruction in non-art subjects” (p. 144), while the Consortium of National Arts Education Organizations (1994) defines arts-integration as “the use of two or more disciplines in ways that are mutually reinforcing, often demonstrating an underlying unity” (p. 13).

Researchers argue that arts-integration encourages students to think more holistically (Mason, 1996), and that it provides students and teachers with learning experiences that are intellectually and emotionally stimulating (Burton, Horowitz, & Abeles, 1999; Deasy, 2002), all whilst enhancing content learning (Burnaford, Brown,
Doherty, & McLaughlin, 2007; Martin, Mansour, Anderson, Gibson, Liem, & Sudmalis, 2013). Other researchers contend that what students gain through involvement in the arts are dispositions that are valuable assets in the academic world—such as persistence and reflectiveness (Hetland, 2013; Hetland, Winner, Veenema, & Sheridan, 2007).

Many researchers have reported significant differences in academic outcomes in schools that employed arts-integrated curriculum compared to traditional schools (Barry, 2010; Catterall, Dumais, & Hampden-Thompson, 2012; Phillips, Harper, Lee, & Boone, 2013). Also noteworthy, Rabin and Redmond (2006) summarize emerging evidence that the arts have a powerful impact on student achievement, particularly for students in the lowest socioeconomic status quartile, those most at risk academically. Also of interest, Hardiman (2003, 2010) argues that implementing artistic activities through the curriculum improves long-term retention of content (Hardiman, et al., 2014).

**Summary**

The purpose of this study is to explore the practice of teaching for creativity in the public school classroom. Therefore, this literature review seeks to merge the expansive field of creativity with education first by exploring definitions, theories, and frameworks of creativity, then by delving more deeply into the classroom application of creativity. My hope is that the results of this study will help add to the existing literature about creativity in the public school classroom.
Educational Connoisseurship and Criticism

Educational Connoisseurship and Criticism, developed by Elliot Eisner in 1988, is a form of arts-based qualitative inquiry intended to inform and improve education. Eisner refers to connoisseurship as the “act of knowledgeable perception” (1985, p.215) and perhaps most importantly as “the ability to make fine-grained discriminations among complex and subtle qualities (1976, 1985b)” (1991, p. 63). He continues: “Looking is a necessary condition, but looking is essentially a task that one undertakes; it is seeing that is the achievement” (1985, p. 216). Eisner has stated that connoisseurship is a private undertaking while criticism is public in its very nature, or in other words, educational criticism “provides connoisseurship with a public face” (1985, p. 85). It is also important to note that criticism does not imply a negative appraisal of the subject matter, but rather “the illumination of something’s qualities so that appraisal of its value can be made” (1976, 1991). Eisner summarizes educational criticism well when he states:

The task of the critic is to perform a mysterious feat well: to transform the qualities of a painting, play, novel, poem, classroom or school, or act of teaching and learning into a public form that illuminates, interprets, and appraises the qualities that have been experienced. (Eisner, 1998, p. 86)
Criticism, defined as the act of public disclosure, is the researcher’s opportunity to reconstruct meaning from the work compiled during the connoisseurship stage of research. Eisner (1998) notes, “One can be a great connoisseur without being a critic, but one cannot be a critic of any kind without some level of connoisseurship” (p. 86).

Eisner (1991) outlines five dimensions of schooling that effective researchers should acknowledge and closely observe. They include the intentional, structural, curricular, pedagogical, and the evaluative. In this research study, I have focused on the first four dimensions of schooling as stated in my research questions. Through teacher interviews and classroom observations, I highlighted the intentional dimension, which allowed me to more thoroughly understand the goals and intentions of each teacher as they related to creativity. The structural dimension allowed me to analyze the physical structure of the classroom— that is, how the furniture in the classroom was arranged, the appearance of the surrounding walls, the schedule for the day, and much more. I explored the curricular dimension during teacher interviews as I asked about the curriculum being utilizing in their classroom setting, how it was chosen, and how it is implemented. I also had the opportunity to thoroughly observe this curriculum during classroom observations. Lastly, I explored the pedagogical dimension heavily, which looks at how teachers teach, during classroom observations. One underlying, cumulative goal of my research study is to understand the pedagogical aspect of teaching for creativity. In this research study I am not concerned with the evaluative dimension, as it would drastically change the tone and focus of this qualitative research study. Again, the core of this study is concerned with the practice of teaching. The reality is, in today’s public school classrooms, teachers do
not have direct control over the evaluative dimension; decisions regarding evaluation are most commonly made at the district and state level. For reasons such as this, the evaluative dimension was not included in this study. With that being said, if a participant mentioned evaluation and testing during formal interviews, it was certainly considered and included in teacher descriptions when applicable.

**Four Dimensions of Educational Criticism**

Within educational criticism there exists four dimensions including descriptive, interpretive, evaluative, and thematic. The descriptive element is an “attempt to identify and characterize, portray, or render in language the relevant qualities of educational life” (Eisner, 1985, p. 226). After numerous classroom observations in each setting, I offer an “artistic representation of events” with the optimal goal of painting a vivid and comprehensive perspective of the classroom life (Eisner, 1985, p. 226).

The next element of educational criticism is the interpretive. It can be difficult to understand where the descriptive element ends and the interpretive element begins, but the heart of the difference lies in the emphasis and focus (Eisner, 1985). While the descriptive element exists to provide an “account of,” the interpretive element can be seen as “accounting for” (Eisner, 1991, p. 95). The interpretive element asks, “How does the classroom operate and what theories and ideas can be used to explain its major features” (Eisner, 1985, p.229)?

The *evaluative* element exists so that researchers have an opportunity to ascertain what carries significance and value (Eisner, 1985). It is through the evaluative process that themes, or the *thematic* element, surfaced. As previously stated, after I completed a
thorough description and interpretation of the classroom observations and teacher interviews, I applied and analyzed theories of creativity and arrived at my evaluation of the process of cultivating creativity in elementary students. Within my evaluation, themes, or the “distillation of the major ideas or conclusions that are to be derived from the material that preceded it” emerged (Eisner, 1985, p. 233).

**Credibility in Education Criticism**

The critics of qualitative research often question the validity of the research process, arguing that it is subjective and lacking in quantifiable truth. To heighten the validity of Educational Criticism, Eisner (1998) presents three sources of evidence: structural corroboration, consensual validation, and referential adequacy (Eisner, 1985b).

*Structural corroboration*, much like triangulation (Clark & Creswell, 2010) is the process of supporting the researcher’s interpretation by relating multiple forms of data (Eisner, 1998, p. 110). Structural corroboration requires a strong and ample “musterin of evidence.” Therefore, in this research study, I related data gathered from teacher interviews, classroom observations, and teacher artifacts such as lesson plans or stated learning goals (Eisner, 1998, p.111).

*Consensual validation* is the “agreement among competent others that the description, interpretation, evaluation, and thematics of an educational situation are right” (Eisner, 1998, p. 112). One effective step in ensuring that consensual validation is present in any qualitative research study is to provide opportunities to member checking. That is, to share the data analysis with research participants to ensure its accuracy.
Underlying the last source of evidence, referential adequacy, is the critic’s ability to successfully “illuminate its subject matter” and further human understanding about its topic of study (Eisner, 1998, p.113). Eisner states, “an educational critic’s work is referentially adequate when readers are able to see what they would have missed without the critic’s observations” (Eisner, 1998, p.114). It is my belief that by employing educational criticism as my research method, I was able to vividly capture the essence of the classrooms I observed and the teachers I interviewed, thus strengthening the referential adequacy of my work.

**Research Questions and Study Design**

The purpose of this study is to examine the practice of teaching for four public elementary teachers who have been identified as teachers who work toward cultivating creativity and innovation in their students. Four questions guide this study. An explanation of each question follows.

1. *What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students?*

2. *How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students?*

3. *How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students?*

4. *What is the educational significance of these ideas and practices for students, teachers, and administrators?*
**Question 1: What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students?**

In order to more thoroughly understand each teacher’s intentions, I conducted a series of interviews. The initial interview, lasting approximately 45 minutes in duration was focused primarily on teacher background information and consequently served as a natural icebreaker. The second interview focused on teacher intentions, pedagogy, and curriculum. When additional information regarding teacher intentions was necessary, it was also garnered from classroom observations or artifacts. Some teachers expressed hesitation when attempting to verbalize their intentions and its relationship to the cultivation of creativity because they had not readily connected the two. Many teachers struggled with the labeling their work or themselves as creative, and instead, reserving its application to highly creative works of art, or Big C creativity as discussed in Chapter Two. However, with additional time and thought, they all arrived at intentions they felt strong about.

**Question 2: How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students?**

The aim of this research question was to better understand how the physical space of the classroom, as organized by the teacher, helped aid in the development of creativity in students. To effectively answer this question, I conducted a series of observations in which I drew diagrams of the classroom space, paid careful attention to the student’s and teacher’s movement through the classroom space, and took elaborate notes on the general
aesthetics of the space. I documented furniture arrangement, wall decor, student access to materials, colors, classroom materials, music, sounds, and aromas.

Question 3: How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students?

I addressed this research question through classroom observations, teacher interviews, and the collection of instructional artifacts. In the second interview, I asked teachers about their teaching pedagogy, curriculum, and about their classroom structure and environment. I also attended to these elements during classroom observations. For example, I observed the presence of collaborative group learning, interactive teaching methods, classroom discussions, problem solving opportunities, simulations, presentations, and other teaching strategies that play a hand in constructing each teacher’s personal pedagogy.

Question 4: What is the educational significance of these ideas and practices for students, teachers, and administrators?

I analyzed the data collected from observations, interviews, and instructional artifacts to find salient themes among teachers who cultivate creativity in elementary-aged students. Again, Ken Robinson (2011) argues that the only way to meet the challenges of our increasingly complex world is to nurture the single greatest gift of human intelligence; that is, creativity. By attending closely to the subtleties that exist in the teaching practices of four talented elementary educators who cultivate creativity, I hope to shed light on what creative teaching and learning looks like and how it can be successfully administered in today’s public school classroom. My hope is that
highlighting their stories will uncover new pathways for embedding the cultivation of creativity in students into the curriculum of public elementary schools.

A few necessary distinctions must be made. First, it should be noted that there is a noteworthy difference between the terms “creative teachers” and “teachers who cultivate creativity.” This study is mostly concerned with the latter, teachers who teach for creativity. While I realize the two terms are not mutually exclusive, and that by studying teaching for creativity I inevitably encountered creative teachers, I feel a narrowing focus is essential in conducting a successful study on such a broad topic as creativity. With that being said, at times, it felt seemingly impossible to study a teacher’s pedagogical approach without analyzing whether or not they were teaching creatively. While I remained open to what the research presented, I focused the majority of my energy on studying teaching for creativity. A more thorough overview of the differences amongst these two terms is presented in the literature review in Chapter Two.

Secondly, I looked for educational experiences where creativity was pervasive, where it was embedded in the daily happenings of the curriculum. I did not wish to observe environments in which creativity is confined to an isolated time slot each day, where it was seen as a “breather” from the daily routine of more seemingly academic work. Lastly, I sought teachers who not only provided students with opportunities for creative expression, but also with opportunities for creative development (Claxon, Edwards & Scale-Constantinou, 2006).
Data Collection

The Sites.

Gaining access to school sites proved to be a much more difficult feat than I had originally envisioned. Besides the predictably slow process of gaining access, which can often involve long periods of “wait time” while attempting to acquire principal consent and teacher participation, this study presented an added level of difficulty in identifying and gaining access to school sites as my search was narrowed by two major, albeit self-imposed, constraints: 1) All school sites needed to be public elementary schools; 2) All school sites had to clearly state a school-wide emphasis on creativity and innovation in their school mission statement or other public document. This meant that I was starting my search with a very small field of potential candidates. I identified and reached out to approximately six school sites in the Denver-metro area and one in the greater San Diego area. After gaining access through a site administrator as well as school district approval where necessary, I then reached out to educators that had been identified by site administrators as educators who worked toward cultivating creativity and innovation in students. In the end, I conducted research in three school sites: Armstrong Elementary Charter School, The Learning Place, and Destination Innovation. It should be noted that for reasons of privacy, all identifying names have been changed.

Armstrong Elementary Charter School, a public charter school serving approximately 360 children in grades K-5, is located in San Diego, CA. Enrollment is based on a competitive lottery system; therefore, the school population is a diverse cross section of San Diego County. As part of the highly prized and innovative Sunset Cliffs
model of schools, Armstrong Elementary Charter School is embedded in a larger “village” structure serving students Kindergarten through twelfth grade. At Armstrong, learning is emphasized as an interactive, student-centered process structured around creative project-based learning experiences. Its unique model, curricular approach, and soaring test scores, have attracted educators worldwide.

The Learning Place is a public arts integration magnet school located in the suburbs near Denver. Serving approximately 300 students, grades Kindergarten through fifth, the school-wide mission is to infuse the arts into standard-based learning in the core subjects. Students at The Learning Place are enrolled through a competitive lottery system, which makes for a uniquely diverse student population.

Destination Innovation is a public elementary school in the Denver metro area serving approximately 200 students in Kindergarten through fourth grade. Destination Innovation, in its third year of operation, is a new district-run performance school with innovation status granted by the state of Colorado. At Destination Innovation, teachers “infuse creative thinking, challenge and collaboration with community partners into all aspects of student learning” (School website, 2014).

The Participants.

Once contact was established with the school site administrators and consent was obtained, the site administrators then identified classroom teachers they believed fit the criteria of what I was looking for. Again, that criteria was 1) general classroom teachers in Kindergarten through Fifth grade 2) teachers who cultivate creativity and innovation in
their students through their curricular choices, pedagogical beliefs, delivery of instruction, and their general practice of teaching.

I was able to begin data collection at Armstrong Elementary relatively quickly as the school principal was incredibly prompt in his response and his identification of willing classroom teachers. Mrs. Inder and Mrs. Marie, both fourth grade teachers at the time that this study began, warmly welcomed me into their classrooms in the late spring and again in the early fall with the start of a new school year. Upon meeting Mrs. Inder, I was quickly entranced by her lovely British accent and her calming demeanor; it did not take long to see that her students felt the same way. In her eighth year of teaching, Mrs. Inder left London after five years of teaching to pursue her dream of a more creative, holistic, project-based teaching position at Armstrong Elementary. Mrs. Marie, a fervent, veteran teacher in her seventeenth year of teaching, came to teaching after a short career in business. Passionate, and innately inquisitive, Mrs. Marie jumped into the study with great interest.

I gained access at Destination Innovation in the late fall, and the principal was quick to identify Ms. Nunes as an extraordinary teacher who worked toward cultivating creativity in her students. Ms. Nunes, a third grade teacher, has been teaching for three and a half years, two of those at Destination Innovation and the remainder at an expeditionary learning school in the Denver area. In our first encounter, it was clear to see that Ms. Nunes was a perfect fit for this study; in fact, she even said so herself. “This is perfect! Creativity is one of my favorite things to talk about!” she declared.
I first observed Mrs. Anne, at The Learning Place, in early January, just after Winter break. Mrs. Anne, who has been teaching for six years, was quick to welcome me into her classroom. She went above and beyond to help me gain access to The Learning Place and her classroom, informing parents that the topic I was studying was of great importance. I found Mrs. Anne to be incredibly reflective and thoughtful in her teaching practice.

In Chapter Four, I present more detailed information about the teachers and their school sites; however, below is a chart outlining basic background information.

<table>
<thead>
<tr>
<th>Name</th>
<th>Current School</th>
<th>Current Position</th>
<th>Years of Experience</th>
<th>Type of Curriculum/School</th>
<th>Data Collection</th>
</tr>
</thead>
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<td>Armstrong Elementary</td>
<td>Fourth Grade</td>
<td>8 Years</td>
<td>Project-based/Charter</td>
<td>April 2014, October 2014</td>
</tr>
<tr>
<td>Mrs. Marie</td>
<td>Armstrong Elementary</td>
<td>Fourth Grade &amp; Fifth Grade</td>
<td>18 Years</td>
<td>Project-based/Charter</td>
<td>April 2014, October 2014</td>
</tr>
<tr>
<td>Ms. Nunes</td>
<td>Destination Innovation</td>
<td>Third Grade, Content Specialization: Math and Science</td>
<td>2 Years</td>
<td>Creativity Curriculum/Innovation Status</td>
<td>December 2014</td>
</tr>
<tr>
<td>Mrs. Anne</td>
<td>The Learning Place</td>
<td>Second Grade</td>
<td>6 Years</td>
<td>Arts-integration/Magnet</td>
<td>January 2015</td>
</tr>
</tbody>
</table>

Table 1: Informational Teacher Overview

**Interviews.**

Seidman (2012) reminds us that interviews present the opportunity to hear other’s stories, their personal experiences. And that, “At the root of in-depth interviewing is an interest in understanding the lived experience of other people and the meaning they make of that experience” (p. 9). A great deal of my data was collected through a series of
formal interviews with the participants. I utilized a semi-structured interview protocol in which the majority of the questions posed were open-ended in structure (see Appendix B). This allowed teachers to elaborate on topics about which they felt more passionate. However, occasionally, this structure also lead to unwanted brevity and succinctness, which required additional prodding on my end in order to arrive at answers with an ample explanation. In most cases, interviews took place over two separate meetings; however, I also conducted a third follow-up phone interview when necessary.

The interviews took place after I had observed in the teacher’s classroom for approximately one week. I arranged the schedule in this manner in hopes of establishing a friendly rapport (Seidman, 2012) with the classroom teachers prior to conducting interviews in hopes that this would lessen any possible anxiety or nerves around the interview. All interviews, except any phone interviews, took place in the teacher’s classrooms either during or after school hours. I audio recorded all interview data and transcribed it by hand, hoping this would help to deeply immerse me into the data, which it did.

I continued to establish rapport by engaging informal conversations, expressing gratitude, and by listening intently to what they had to share. On a similar vein, the topics I discussed with the participating teachers were innately emotional and often troubling for some. Because of this, I also had to ensure the high levels of rapport I worked so hard to establish did not manifest into emotional therapy sessions for participating teachers (Seidman, 2012). In situations when teachers became incredibly consumed by the topic, which often resulted in powerful, emotionally charged reactions, I worked hard to
maintain the role of researcher by simply listening to the participants and avoiding my gut reaction of wanting to offer support and advice.

The initial interview, which lasted approximately one hour in duration, focused on general background information, teaching philosophies and pedagogy, teacher intentions, curriculum, and classroom structure/environment. The subsequent interview, lasting approximately 45 minutes to one hour in duration, focused on the different elements of CRIPSA and CREATE.

Observations.

I observed in each participant’s room for approximately two to three weeks. The observations ranged from full day observations to segmented half-day observations, depending upon the teacher’s schedules and my own research protocol. For example, at Destination Innovation, the days were segmented into integrated blocks with teacher content specification, so full day observations would result in seeing the same lesson twice. Working in public elementary schools also meant I had to work around specified state and district testing days and time slots.

My level of classroom participation during the observations varied from class to class and from day to day. Most often, I would sit it the back of the classroom taking notes on my laptop. Occasionally, as was the case in Mrs. Inder’s classroom, teachers worked hard to ensure I felt included in the learning environment and therefore often preferred I participate in the activities taking place. When this was the case, I would happily stop taking notes, close my laptop, and scoot my chair in closer to the learning hub. The students seemed to prefer this, particularly as my time in the classroom
progressed. By the end of the second week, most students had inquired about what was happening behind my computer screen- the rapid paced typing elicited many inquiries.

I worked hard to ensure my observations were fully encompassing of the classroom environment. I took time to reflect on the observation notes each evening and with my reflection, I chose a goal for the following day. These goals included different points of focus including direct teacher quotes, teacher and student movement throughout the room, reflections on classroom environment, and curriculum to name a few. While the majority of my observation time was spent typing notes, I also spent time documenting the space through photographs, drawings and diagrams. I took pictures of the classroom environment including the bulletin board displays and furniture arrangement.

Each teacher warmly welcomed me into their classroom and introduced me as a researcher from DU. Mrs. Inder took it a step further and asked me to introduce myself and what I was studying. She then encouraged the students to ask a variety of questions about what it means to be a researcher. I welcomed this opportunity as it seemed to ease student wonderment or confusion in regards to my role in their classroom.

**Artifacts.**

In addition to conducting observations and interviews, I also collected data from a variety of artifacts. I found that during interviews and observations, the participating teachers would often given additional copies of assignments or lesson plans to me in hopes of shedding light on the work they were doing. One teacher, Mrs. Inder, even shared all of her planning documents with me so that I could access them at anytime.
online. These artifacts proved to be useful in understanding the classroom and school underpinnings, and they also provided the opportunity to validate information extracted from teacher interviews and classroom observations. In total, the artifacts included informational parent brochures, school calendars, classroom and school newsletters, project brochures, curricular scope and sequence plans, blog entries, and student assignments.

**Limitations of the Study**

Within this study, and all research studies, exist potential, inherent limitations. As Patton (1990) notes, “There are no perfect research designs. There are always trade-offs (p. 162). One major limitation was the process of identifying teachers who “cultivate creativity.” As I previously stated, I first identified schools that had a very transparent emphasis on creativity and innovation, as detailed in their mission statement. I then relied on the school site administrators for recommendations of teachers they thought would be a good fit for my study. Although this was the most reliable and feasible way I believe teachers could be identified, I also realize there are shortcomings with this identification process as well. For example, it is possible that the administrators’ own definitions of creativity may not be synchronized with the definitions of creativity put forth in this study and therefore their selections may have lacked compatibility. With the many demands put on administrators each day, it is also possible that some administrators have become rather detached from the internal classroom happenings and therefore they may not be the most reliable recruiters for a study such as this. With all this being said, I do
believe the site administrators utilized in this study did recommend well-suited participants.

Additionally, because of the inherent nature of the elementary classroom, within the participant population, there exists recognizable homogeneity. In the end, all participants identified were Caucasian females. All schools were also from urban-metro areas in close proximity to a large city. While this was not problematic for the purposes of this research project, it does limit the generalizability of this study. It would be insightful to include rural schools and both male and female teachers in future studies.

Finally, this study was also limited, albeit mildly, by the availability of teachers and by my own availability. On occasion, observation hours were often changed or derailed altogether because of various legitimate reasons such as practice testing, sick days, unforeseen meetings, specials, and block scheduling. Although I do feel as though I spent ample time in each classroom setting to derive salient themes, I wish I could have observed each teacher for multiple full days had our schedules allowed that to happen.

About Researcher

A handful of years ago I arrived in Denver, a rookie teacher with a novice attitude. I believed the three previous years I had spent teaching in a low income, Title 1 school on the California-Mexico border, had thoroughly prepared me for any educator’s toughest challenges. After all, I had managed to bring nearly all of my Kindergarten students to grade level proficiency in reading and math while so many of them simultaneously dealt with issues of poverty, language barriers, and constant mobility. With clearly stated daily learning objectives, I diligently and thoroughly covered every
state and district standard. Each child, with new command of the English language and a wealth of factual knowledge, seemed to walk with a new sense of pride upon exiting our classroom doors for the last time. Our success was abundant. Upon leaving this challenging, diverse school site, the thought at the forefront of my mind, albeit naïve, was simply: If I could reach these students, then surely I would be successful teaching in an affluent private school where resources were plentiful and parent support was optimal.

Once in Denver, I quickly adapted to my new setting, an affluent gifted and talented private school. I had made lasting connections with the students, parents, fellow teachers and administrators within weeks of my arrival. The school site was bursting with personality; everywhere you went you could see and feel an invigorating buzz in the air. The curriculum centered on a project-based learning model, which seemed to energize teacher and student passions alike. To top it off, the student to teacher ratio would have made even the most discerning teacher smile as class sizes were incredibly small and there were two teachers in every classroom. The students approached all learning with a constructivist fervor that would have made John Dewey proud. They asked endless questions, sought answers that carried depth, talked with great passion, and had a constant buzz of curiosity. They tinkered, grappled, constructed, and took command of their own learning. They were thriving and so was I. But then it hit me. My students and I were not merely seeking “proficiency.” As we sat, engrossed in learning, we were thriving. With the holistic, creative approaches to learning that my new school site embraced, my senses were awakened, my creativity revamped, and I was enjoying every step of the educational journey. I was flourishing. I could not help but think everyone
deserves this; everyone deserves the opportunity to reach their maximum potential in a rich and stimulating environment regardless of the societal or economic pressures they face. Our optimal educational goal should not be proficiency. Instead we should dream bigger. I believe our utmost goal should be to educate students to think creatively and critically and to instill an intrinsic love for learning. And so my research interest was born. I am eager to observe teachers who are cultivating creative, innovative minds despite the limitations of standardized testing and district and state mandates that so many public schools struggle with. Through this dissertation, my hope is to uncover the practice of powerful teaching that has the potential to cultivate creativity in students.
Chapter Four: Descriptions of Classroom Environments and Educators

Introduction

In this chapter I present detailed descriptions of the four educators and their classroom environments. I begin each of the four sections with a brief description of each school site followed by a more thorough teacher description presented through a handful of short vignettes. The vignettes that depict the four educators and their classroom environments are organized into five sections: The Physical Environment, The Intentional Dimension, The Pedagogical Dimension, The Curricular Dimension, and Closing Thoughts. The Intentional Dimension, The Pedagogical Dimension, and The Curricular Dimension were selected from Eisner’s (1998) five dimensions of schooling.

Eisner (1998) describes the intentional dimension sections as “the goals or aims that are formulated for the school or a classroom” (p. 73). The general school intentions were considered during the school site selection process, as I identified three schools focused on cultivating creativity and innovation in students. I then chose to focus the heart of this research study on the intentions of the participating classroom teachers. I collected data on teacher intentions through interviews and classroom observations. I conducted a minimum of two interviews and a maximum of four interviews in which I directly asked the classroom teachers about their intentions for their students. I then used observation data to support the realization of their stated intentions.
Referring to the pedagogical dimension of schooling, Eisner (1998) argues that educational connoisseurs must have the ability to perceive not only the most obvious of pedagogical choices including stylistic approach and preferences, but that connoisseurs must also be able to look with greater depth to discern the “personal signature” each teacher puts on his/her work (p. 79). Within the pedagogical dimension, I examined the teacher’s approach, style, and signature through observations and interviews. Again, these findings are presented in short vignettes.

The curricular dimension, as described by Eisner (1998) considers the “quality of the curriculum’s content and goals and the activities employed to engage students in it” (p. 75). During formal interviews, I asked the teachers direct questions about the curriculum in place at their school sites. Questions posed to the teachers included topics such as the type of curricular approach in place at the school site, teacher flexibility in curriculum planning, time allotted to curriculum planning, and general contentment with curriculum and its implementation.

Additionally, I chose to explore the Physical Environment of the four classrooms as the learning environment has been shown to have a substantial impact on the creative process. I documented the physical environment of the common spaces at each school site through photographs and short vignettes. I also mirrored this approach in each of the four participants classrooms, only in much greater depth. It should be noted that the photographs exist to supplement the narrative and create a more holistic description.

Four teachers and three schools sites were selected for participation in this study. I spent approximately two weeks in each classroom conducting observations in the
classroom environment and interviews with the classroom teachers. The interviews and observations were completed in a fluid, consistent manner over the two week period with the exception of the observations at Armstrong Elementary Charter School, where I observed in the late spring and again in the early fall of the following year. This format was chosen for two reasons: I was granted quick access to the site, which allowed me to be in the two classrooms earlier than I had anticipated and also because it allowed me to see the teachers’ practice at two very different times of the school year will allowed me to gather a more complete perspective. As any educator knows, the beginning of the school year can be overrun by teaching expectations while the end of the year can be consumed by district and state testing. I observed, at all school sites, on varying days of the week, based on teacher availability and content being taught. I made great efforts to observe each content area being taught by the classroom teacher as well as other extracurriculars taught by instructional specialists. It should also be noted that in order to contribute to the trustworthiness and credibility of my findings, I employed the process of member-checking with each of the four participants (Lincoln and Guba, 1985).

In summary, this chapter exists to introduce the reader to the four classroom teachers through detailed descriptions of their classroom environments. These descriptions are guided by my interpretation and evaluation of the teacher and the environment that is created. The thematics derived from this study will be discussed in Chapter Five as I explore the evaluations and the implications in greater depth.
Conceptual Framework: An Overview

In order to more successfully guide the reader through the teacher descriptions and interpretations, I have included a labeling system, derived from the conceptual framework guiding this study. This labeling system will make it clear to the reader why certain vignettes and stories were included in the descriptions. At the beginning of each section, green and/or orange badge icons will appear next to the title. These badges exist to inform the reader which conceptual framework themes are demonstrated through particular teacher descriptions. That is, when a theme is demonstrated, and therefore creativity is being promoted, a badge icon will appear. To interpret the meaning behind each badge, the reader must simply observe the color and letter of the badge. Green badges denote themes derived from the CREATE framework while orange badges denote themes derived from the CRISPA framework. Lastly, I have included the emergent themes as blue badge icons. The emergent themes will be addressed in greater detail in Chapter Five. All themes that applied to each framework are included. For example, if connections, risk-taking, imagination, and resilience were all present in the learning experience as presented in the vignette, they will all appear below the title such as this:

Sample Title

In some cases the presence of the themes differed in that they were either observed in the classroom setting or they were stated during observations or formal interviews. It should be noted that the badge icons will not denote differences in the observed or stated presence of themes. I applied the conceptual framework labeling
system to the following sections within this chapter: the intentional dimension, the physical environment, the pedagogical dimension, and the curricular dimension. I also applied the labeling system to vignettes which had underlying connections to the intentional, pedagogical and curricular themes by may not have necessarily have been organized under the specific dimension. Also noteworthy, when a vignette or story is included in the chapter, but no badge icons appear by its title, this simply means the vignette was included in order for the reader to gain vital background information about the participant. A diagram is presented below to remind the reader what the framework acronyms stand for and how each badge icon will appear in the text.

**Conceptual Framework: The Reader’s Guide to Identifying the Themes**

![Conceptual Framework Diagram]

Finally, in order to help the reader manage and quickly reference participating teacher background information, a chart summarizing these details is presented below.
<table>
<thead>
<tr>
<th>Mrs. Inder</th>
<th>Armstrong Elementary</th>
<th>Fourth Grade</th>
<th>8 Years</th>
<th>Project-based/Charter</th>
<th>April 2014, October 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs. Marie</td>
<td>Armstrong Elementary</td>
<td>Fourth Grade &amp; Fifth Grade</td>
<td>18 Years</td>
<td>Project-based/Charter</td>
<td>April 2014, October 2014</td>
</tr>
<tr>
<td>Ms. Nunes</td>
<td>Destination Innovation</td>
<td>Third Grade, Content Specialization: Math and Science</td>
<td>2 Years</td>
<td>Creativity Curriculum/Innovation Status</td>
<td>December 2014</td>
</tr>
<tr>
<td>Mrs. Anne</td>
<td>The Learning Place</td>
<td>Second Grade</td>
<td>6 Years</td>
<td>Arts-integration/Magnet</td>
<td>January 2015</td>
</tr>
</tbody>
</table>

Table 1A: Informational Teacher Overview
As I enter the double doors at Armstrong Elementary, I’m warmly greeted by a receptionist who recognizes me from my previous visit last spring. She welcomes me and asks me to sign in. After signing in and collecting my visitor badge, I turn to walk down the long hallway lined with eclectic, colorful chairs, and vibrant artwork. The chairs are an unexpected surprise, beckoning me to sit and take in the student work that adorns the walls. The artwork brings a warm, cheerful smile to my face. As I walk further down the hallway, I notice resource rooms off the main hallway: a student library, the technology office, speech therapy classrooms, an occupational therapy room, an enrichment room, Kindergarten classrooms, and an art studio.

I also begin to notice the bulletin boards outside each classroom door. One bulletin board has colorful self-portraits, another has colorful maps of student’s homes, and one more has beautifully unique art sculptures composed of “found items” including items such as twigs, golf balls, cotton balls, fabric, wine corks, pinecones, wires, and pipe cleaners. Another display simply reads “friendship tower”. It appears as though cereal boxes and shoes boxes have been adorned with fabrics, glitter, sequins, tissue paper, and feathers. Each box displays a “friendship word” written in student handwriting: ask, share, calm, please, kind, cheer up, help, play, give, take turns, fun, safe, peace, buddies, caring, and love to name a few. As I walk, I also notice each classroom has a decoratively painted mailbox outside the classroom door. The hallway is a widely used space as
students access the playground through the main hallway. It seems to have become a showcase of student work, a glimpse into the world of Armstrong Elementary.

Two young girls stop in the hallway to talk with who appears to be their former teacher. Hugs are exchanged as well as simple, yet affectionate greetings. One student wears a tutu and another wears two different colored converse sneakers- one pink, one black. The students and teacher exchange casual, comfortable conversation for a few minutes before they decide to accompany one another down the hall and back to their classrooms.

Armstrong Elementary Charter School, a public charter school serving approximately 360 children in grades Kindergarten through fifth grade, is located in San Diego, CA. Armstrong Elementary first opened its doors in 2000 to 120 students with the mission to integrate social and emotional intelligence with the academic content. Now, as part of the highly prized and innovative model of schools, Armstrong Elementary Charter School is embedded in a larger “village” structure serving students Kindergarten through twelfth grade. There are currently twelve schools within the Sunset Cliffs network of schools, all of which strive to enrich student learning and postsecondary success through interactive, project-based curricular experiences. Sunset Cliff’s unique network of schools, and specifically Armstrong’s curricular approach and soaring test scores, have attracted educators worldwide. Enrollment is based on a competitive lottery system; therefore, the school population is a diverse cross section of San Diego County. Ethnicity breakdowns by school population for Armstrong Elementary are as follows: 11%
Asian/Pacific Islander, 21.2% Hispanic, 6% Black (non-Hispanic), 58.8% White (non-Hispanic), and 8% of students are of two or more races.
Image 1: Armstrong Elementary Hallway 1

Image 2: Armstrong Elementary Hallway 2
Mrs. Inder

Mrs. Inder is currently in her eighth year of teaching. Although she spent a few childhood years living in Germany, the majority of her childhood was spent in London. After earning her degree in English Literature and Philosophy while attending the University of Sheffield, she spent three years working in publishing and marketing for a comedy company. Having realized something was missing from her chosen career, Mrs. Inder enrolled in a teacher-training program at Goldsmith’s in London. She then
completed five years of teaching in London only to feel like both the school structure and culture were not the ideal fit for her personal educational philosophy. Because of this, Mrs. Inder sought a teaching position at a school with a mission that is more closely aligned with her educational interests of engaging in project-based learning units of study and creating connected learning experiences for students. Now in her third year at Armstrong Elementary, Mrs. Inder has taught fourth grade each year. Mrs. Inder is also completing her Masters degree at Sunset Cliff’s Graduate School of Education.

Mrs. Inder, with straight, soft brown hair that hits at her chin and bangs that frame her face, can often be seen sporting a genuine, subtle smile. With a fashionable yet practical look, she confidently dashes about the classroom wearing stylish flats, a feminine blouse, and a fitted blazer. When she speaks, her lovely British accent and dialect quickly captivate the attention of all twenty-four students in the classroom. Her voice is calm, her tone flat, and her message is always purposeful and articulate. She comes across as warm, witty, passionately inspired, and incredibly motivated.

The root of inspiration: Pursuing passion stateside.

The path of teaching is not one that Mrs. Inder ever intended to follow. In fact, having come from generations of teacher, Mrs. Inder states that she actually tried her best to avoid it.

I was determined not to be a teacher. My mom’s a teacher. My granny’s a teacher. Far too many teachers in the family, but nothing was as exciting as when I’d gone
and helped my mom, and I found I was clock watching... so I went back (to school to become a teacher).

Captivated by the excitement of being in the classroom, Mrs. Inder returned to school to earn her teaching credentials at Goldsmith’s in London, a teacher-training program highly regarded for its creativity. After completing her teacher training, she then taught for five years in a school in London with “typical intercity kinds of issues.” For Mrs. Inder, it just never felt like a “great fit.”

I’d gone into teaching with all these great ideas about what I wanted teaching to be like. I had all these ideas about how I could connect learning and I found that when I got into schools subjects were often taught really discretely. And suddenly these ideas stopped and I didn’t have any opportunity to develop them. So, it was about three years in that I read Ron Berger’s Ethic of Excellence, but it was a real sort of turning point for me because I sat there and cried and thought I can’t do this, and there’s just no way I can do it in England.

Mrs. Inder shares stories of educational conferences that she attended, hoping to get an answer as to how she could implement progressive educational ideas without a supportive leadership team behind her at her school site. No one had the answer she was looking for. In fact, she was often told it was an impossible feat that could not be accomplished. Bogged down but not defeated, Mrs. Inder set out to find a resolution in which she could teach the way she had always dreamed of teaching. At the time, Mrs. Inder’s husband, who was working as a consultant studying engagement in high schools,
was working with the Sunset Cliffs. Ultimately convinced by teachers within the Sunset Cliffs Village that Sunset Cliffs could be the place for them, Mrs. Inder and her husband decided to take a leap of faith and invest their time in a new school, a new country, and a new teaching philosophy. Less than six months later they were in sunny California living their educational dreams.

**On Creativity.**

During our initial interviews, Mrs. Inder reluctantly admitted she had reservations about the concept of creativity in the classroom. She explained feeling as though it was a concept that was often misunderstood and consequently mislabeled. She even hesitated to identify it in her work, until she wrestled with its meaning and its potential application to her classroom.

I don’t know if I think a lot about creativity. I want the kids to feel open to many possibilities and I think creativity is quite a hard concept to define. It’s often misunderstood as being quirky. Or you know, ‘This is really creative’ when someone is just wearing something unusual. But, I suppose creativity to me is being able to have ideas and being able to explore different strengths, but also being rigorous in what you are doing because we often think of creativity as anything the kids do is great because it’s intrinsically creative and I don’t think that’s helpful for them to hear. The people who I know who I think are really doing really fantastic, creative things are the people who really take their work very seriously and go through multiple drafts and really look at everything they
do with a very critical eye. So I suppose I think more of critical creativity where you don’t have a stopping point, you keep trying and you revising and you ask other people. So, I suppose I want the kids to be people who enjoy learning, who look for that buzz when ideas are flowing and coming to them, but they also have that innocence of wanting that excellence, wanting things to be the best they can possibly be and understanding that to get there they’re probably going to have to work very hard.

Realizing that creativity is a rather nebulous concept, I explained to Mrs. Inder that for the purposes of this study, I am looking at creativity from a standpoint of developing creative problem solving, resilience in task persistence, and innovative thought production. She immediately connected with this, stating, “Now, that’s interesting.” It was clear that she connected with this concept of creativity and its application to her classroom. And as any outsider can tell you, after spending a few minutes in Mrs. Inder’s classroom absorbing her teaching style and the physical environment of the classroom, it is easy to see that her approach is refreshingly unique. She can routinely be heard encouraging students and pushing them to their creative limits.

When I asked Mrs. Inder what she does to nurture her creativity now, she laughed and said, “I teach. That’s pretty much all I do.” After a few more laughs, she shared that she feels most restored after spending time hiking, camping, and reading. As evidenced by the project-based learning units of study Mrs. Inder created for the school year, she also sees the importance of exposing her students to activities such as these as well. For
example, during the “Adventure, Adventure, Argh!” unit, students had a chance to experience new adventures such as hiking, kayaking, rock climbing, and camping during class field trips organized by Mrs. Inder.

**Challenges and rewards of teaching in today’s world.**

During the formal interviews, I took time to talk with Mrs. Inder about some of the challenges and rewards she encounters in her teaching profession. Innately positive in nature, Mrs. Inder was quick to shed light on the strengths of Armstrong Elementary stating that the main strength is “the belief in us as teachers and the idea that our passions should feed into the classroom.” She then hesitated briefly and continued with confidence:

I think the challenges and rewards are very similar because the huge reward is that if I had to set up a school this would be very similar to what I would want. And when I say this I mean all the Sunset Cliffs schools together because there are elements of all of the schools that I really love. But the challenge, I think, is knowing when to stop because it’s so much, it’s so involving, and it is what I’m interested in so much that then trying to have a work-life balance within it doesn’t seem to make sense because it is really what I’m interested in. Someone said the other day that education was their life’s work. I was like... Yeah. I wouldn’t have necessarily said that, but I think that’s true. That is what it feels like. This is what I’m passionate about so I want it to be part of my life and I want it to be part of everything, but when do you think “Well… it’s good to step back for a moment?”
And in a way that stepping back helps you be more attuned to the opportunities. It’s only when you have the moments of reflections that you’re able to think “Oh, let’s do a project about this!” Or, “Let’s think about how we can bring that into what we’re learning about.”

I found it interesting, but not surprising, that Mrs. Inder found one of her greatest challenges to be “knowing when to stop” because the planning can become “so involving.” Having experienced her classroom environment first hand, I can attest to the countless hours Mrs. Inder has undoubtedly poured into project planning, the bulletin boards, the organization, and so much more. As I will thoroughly describe in the next section on physical environment, Mrs. Inder’s classroom is a showcase of student learning and documentation. Amazed at the quality and depth of her documentation and planning, I asked Mrs. Inder where she finds the time to produce such fabulous displays of learning while also attending grad school. She shared with me that it generally has happens on the weekends.

An additional challenge that Mrs. Inder expressed is the difficulty in planning and preparing for as well as educating all twenty-four students in a way that is optimal for them. She expresses internal conflict and worry about whether the students are having all their needs met. This reflection highlights Mrs. Inder’s thoughtful nature and her commitment to successfully reach each child in her classroom.

The fact that sometimes you have to try six different things and you don’t know which one is going to work for each student. And so everyday you wake up and think, “Well, am I meeting everyone’s needs? Am I doing everything correctly for
these students?" I introduced different subtraction fact strategies and they all hated them and I really believe it was the right thing to be teaching, but I thought there must be a better way of doing it so that they can all feel excited at the start of it. But now they are, so I think it’s probably okay… It’s such a challenge. They have one fourth grade year. I’m it. And it’s such a responsibility. They’re all individuals and what’s the right thing to do for each of them to create the best environment for them.

On multiple occasions, Mrs. Inder also expresses a desire for increased collaboration at her school site. An innately reflective and thoughtful soul, Mrs. Inder longs to share project ideas, hear other’s ideas, and possibly plan in conjunction with teachers at similar grade levels. This desire is also grounded in the fact that she says she teaches “in a different way from a lot of teachers at Armstrong Elementary." By this, she means that not all of the teachers at her school site approach project learning in the same way, and with the same depth. She expresses this challenge below.

I suppose the other thing, if I can have two, would be I would love to be in a school where there’s more opportunity for collaboration. I think because I teach in a different way from a lot of teachers at Armstrong, I haven’t had the opportunity to collaborate with very many people and I would like to be building from other people’s ideas as well as my own.
Physical Environment

The learning space.

When I enter Mrs. Inder’s classroom for the first time, she warmly acknowledges me from across the room and promptly strolls over to greet me. Her genuine smile and casual introduction make me feel instantly welcome. She quickly shares with me that the class is about to begin their morning meeting and that I am welcome to sit anywhere in the classroom, depending how “in the thick of it” I want to be. She also informs me that she would love for me to give a brief introduction to the students about what I do and why I have chosen their school and their classroom for my study. According to Mrs. Inder, her fourth grade students have been looking forward to meeting a “researcher.” I suddenly feel a slight amount of pressure to prepare a noteworthy introduction for the twenty-four beaming faces beginning to acknowledge my arrival.

“Right, where were we?” states Mrs. Inder as she walks back over to her desk, swivels her desk chair around, and pushes a button on her laptop. The sound of the Beatles Here Comes the Sun fills the classroom and the students promptly grab their chairs and begin carrying them toward the front to form a large rectangle around an area rug. Once the students are settled, Mrs. Inder briefly goes over the schedule, fields a handful of eager questions from the students, and asks me to introduce myself. The students then have a brief amount of time to ask me a few questions. Most questions are on topic, while a few wander.
“What are you researching?”

“How long will you stay?”

“Anna is from Denver. Oh, wait. That’s not right (giggles). She’s from Denmark. Sorry. I got confused.”

“Excellent. Now moving right along to announcements.” states Mrs. Inder in an upbeat and business like tone. The students catch the cue and promptly begin beating their hands on their legs and clapping in repetition. This is followed by synchronized chanting.

“Announcements, announcements, time for announcements. It’s Shannon.” Shannon then shares the highlight of her weekend in a quick sentence before the students begin drumming their hands on their legs yet again. The announcements continue around the circle until it ends where it started with Mrs. Inder.

As the class becomes engaged in conversation with Mrs. Inder about the schedule, I pause for a moment to take in the environment around me. My eyes immediately go to the bulletin boards that encompass the space. They are vibrant. They are thorough. They are impressive. So impressive, in fact, that I will address them separately in the next vignette.

The classroom space is large with good lighting coming in from the large windows that line the exterior wall. There are six round tables with four chairs at each table. The desks and chairs are both of traditional elementary school style and design with faux wood surfaces, metal legs, and blue plastic backing on the chairs. Small blue tennis balls have been cut and attached to the base of the metal legs on each chair as to
limit the ear-piercing noise that is generated from sliding a chair with metal legs on the yellow linoleum flooring. On the back of each chair is a repurposed Home Depot apron, which now houses books and other school materials for each student. On each table rests a shared caddy for classroom supplies. Although there are not nametags, students sit in assigned seats around the table.

At the front of the classroom is a large whiteboard as well as a pull-down screen for the document camera. At the foot of the whiteboard are two simple shelving units for picture books and books on current unit of study. To the right of the whiteboard is Mrs. Inder’s incredibly small desk adorned with fresh sunflowers in honor of teacher appreciation week. Bookcases that appear to hold teacher materials and resources line the space surrounding her desk. Covering the linoleum floor in the front of the room is a large navy blue rectangular rug. The remainder of the perimeter of the room is lined with bookshelves holding math games, leveled readers, chrome books and charging docks, student folders and notebooks, and other classroom materials. The space is appears organized and all materials are accessible to students.
Walls: Learning on Display.

My interest and intrigue was first sparked while I stood in the hallway, approaching Mrs. Inder’s classroom door. Next to the room number display is a picture of Mrs. Inder holding a giant artichoke with a short written dialogue that reads:

Question: You look awfully mysterious in this picture, Mrs. Inder. What are you holding?

Answer: Why thank you. I am holding a giant artichoke!

Question: Why?

Answer: That is a good question!

The hallway bulletin board display is equally as interesting as there is a spot reserved for each student’s work. To the right of the display are greeting cards and a note to parents asking them to take a moment to show they care by responding to their child’s work in writing. It strikes me as a simple yet incredibly thoughtful request that helps students feel supported and encourages parents to become involved in their academic lives. Below the mysterious artichoke picture, there is also a display that reads “Please
take a copy of our project sheet in order to learn more about what Room 15 is working on."

Inspired, I open the door to Mrs. Inder’s fourth grade classroom. My attention is instantly captured by the elaborate bulletin board displays around the room. The walls are covered in burlap and outlined in colorful borders. As I quickly glance around the room I notice a bulletin board titles such as Mathematician’s Wall, Writer’s Wall, Class Blog, and Wondering Wall. The largest wall, in the back of the classroom that appears to be designated to current projects they are studying reads Adventure, Adventure, Arghh! To the right of the display is a sign that reads: “Wondering how to make sense of all the information and work on our project wall? We suggest that you start here and then wander towards the windows. Even better, simply ask one of us to give you a tour!” Within the display, there are pictures highlighting many of the excursions they have taken part in, including pictures from their rock climbing adventures as well as short narratives written by students about the experience. Updates from their class blog have also been printed and displayed on the project wall. To the left, there is a display about the books they have read that connect with their adventure theme as well as student work on famous adventurers from throughout San Diego’s history. The walls seem to reflect Mrs. Inder’s teaching style; they are reflective, thoughtful, and purposeful.

A handful of visitors walk into the classroom while the students are engaged in a hamster research project. A few students notice them and quickly meet them near the door. They begin showing them their work on the walls and give them a quick tour of the classroom. They tell them about the adventure project they are currently engaged in, as
well as the hamster research they are doing in which they are working endlessly to
convince Mrs. Inder that a hamster would make a wonderful class pet. They speak to the
visitors with confidence and respect. It is evident that they are proud of their work. The
adults, who seem equally impressed by the work, pause to take pictures of the bulletin
boards. I have a chance to talk to Mrs. Inder about it a bit later and she notes that it
provides such a great opportunity for them to reflect on the learning they have
accomplished and that it also provides them with a wonderful opportunity to practice
summarizing and highlighting important details. Mrs. Inder also approached the topic
during our formal interviews.

So we have a lot of visitors, and the most useful thing is if we have a visitor and
they can talk them through the project and it’s a chance for them to reflect and
think about the project themselves, so I want them to have all the tools to do that.
I also want them to be able to get up and say “Now why did we do that again?”
And be able to figure it out and see that each day at school has meaning and we’re
not just doing a set of random activities that will lead to something nice in the
end… or not lead to something nice in the end, depending upon how they feel. I
want them to know that each step of the way is considered and why one thing led
to another. I think it’s hard for anyone to do let alone a kid.

In a separate interview session, I inquire a bit more about the time, energy and
effort Mrs. Inder must put into creating the beautifully relevant bulletin boards inside her
classroom space. She eloquently revisits the purposefulness of the walls and their
potential impact on the learning process in this articulate summary.
I want the walls to help students have higher-level reflection on their learning. So, I want the walls to celebrate student work, but to celebrate the process and everything they’ve done to getting there, because I know sometimes I forget to say why we’ve done some things, so I want it to be clear on the walls for them. So, they can take a visitor into our class and show them everything we did for each project. So I’ll write up: First we sharpened our interview skills by interviewing our second grade buddies and then we did this… So I will have photos of what we’ve done, I’ll write down descriptions about what we’ve done and why we did everything so they’re always there on the walls for students to refer to. So, I see the walls as very much a teaching and reflection space as well as a space for celebration.
The Intentional Dimension

Building Capable, Confident Learners.

During classroom observations and interviews, I sought to gather rich data about teacher intentions; that is, what are the teacher’s intentions for her students? What hopes and aspirations do the teachers hold for their students this year and years from now? Watching Mrs. Inder teach is captivating. She is playful yet diligently focused; she often instigates the laughter with her contagious energy, yet she also quickly regroups the students to bring learning back to the forefront. When I asked Mrs. Inder about her intentions for her students, she answered without pause:
I think my intention is that my students feel like they can turn their hand to anything, so they feel like they’re capable of achieving anything, and they have internal high standards of excellence within them where they’re always pushing themselves to make their work better, where they’re not trying to finish things because they want to get it finished, but that they carry on working because they want it to be the best it can be. Not so much that they feel like they can never get finished, but rather something like “I want to have pride in my work. I want to do this really well... to take the next step in learning.” And I’ve told them that they need to have a Mrs. Inder in their head saying “Hmm... What else can you add? What else can you do?” My goal is for them to have that internal independence so that they’re always asking themselves “Well, what can I do to make this better, how can I improve this?” I want them to be able to work to a high standard independently, I want them to be able to discover and find joy in new things, so things they didn’t know they could do, I’d like the world to open up for them.

She continues:

I think the teacher’s role is to help the students achieve more than they could have done otherwise. I want to be silly enough to have them feel like they can break down their barriers so that they feel like they can also be silly and sing. I want there to be an atmosphere of joy and laughter, but also a bit of seriousness. I think I want all those things in the classroom. I want them to be able to be serious when it’s time to be serious, funny when it’s time to be funny and to appreciate
laughing together, singing together, and being together, but also to be able to know how to stop when it’s time to move on to something else.

Just as she intends, Mrs. Inder keeps the students very focused by making them more aware and accountable for their actions. I had the opportunity to witness this first hand during the series of classroom observations I conducted. One morning, during the morning meeting, I noticed a student holding a small whiteboard and pen, keeping record of something that seemed to hold significance for the students. Mrs. Inder finally feeds my curiosity as she explains to me that each week a new student keeps tally of the number of “blurts” and “side conversations” students have during morning meeting time.

“Can anyone share with Ms. Kari how many blurts and side conversations we used to have in the beginning of the year?”

“Umm… at least 20 blurts and maybe 28 side conversations.” Reports one student.

“So you can see, Ms. Kari, we’re improving quite a bit, but we do still have some improvements to make. We shall celebrate the day we have zero blurts and zero side conversations.”

One student shouts out an idea of how they can celebrate to which she answers, “Oh, but we certainly won’t celebrate not blurting by blurting.”

As I said before, my goal is not only to expose kids to new things, but also to make them feel capable. When I was growing up I never felt like I could do math unless I had a pencil and paper or a calculator, and so it’s really important for me to help students learn strategies they can use in their head without having to rely on other tools to know that they are sufficient; they have the capabilities to
manipulate. And that they have the capability to use words powerfully, they have the capability to create a piece of art to a really high standard, whatever they want to do they can do, but it comes from them, not from me.

Upon asking Mrs. Inder if she thought her students were aware of her intentions, she paused for a moment and then shared that she spends a lot of time talking with students about what great work looks like. She mentioned that she is always displaying “high quality examples” that student produce and she also routinely emphasizes how important work is meant to be shared and seen by others. This belief is present in their classroom philosophy, which includes the importance of hosting “exhibitions” to celebrate their culminating work with parents and community members after the completion of a unit of study. Mrs. Inder shared a story of how she was recently consulting with the students about their next exhibition, which the students are in charge of planning. They were stumped on where they should hold the exhibition. She suggested their usual location- the school gathering area near the front offices.

“And they looked at me like I was mad.” Mrs. Inder said with a slight smirk.

“Why would we have it there? Don’t we want more people to see it? We want it to be out in the community where everyone can see it for a long time,” the students all chimed.

Mrs. Inder seemed quite pleased with their display of independent thinking and the great pride they showed in their work by wanting it to be on display for the community. It is clear to me that while Mrs. Inder’s approach may not be directly stated, it is very intentional.
The Pedagogical Dimension

The teacher’s instructional role.

During the formal interviews Mrs. Inder shared her pedagogical beliefs about her instructional role and the students’ roles as learners. As was evident during classroom observations, Mrs. Inder seeks to facilitate classroom learning rather than dictate learning experiences for her students. Before the project-based learning experiences even begin, she spends a great deal of time organizing and planning as well as making her expectations very clear to the students. This level of preparation ensures that the students have the confidence and necessary tools to succeed at a more independent level. The time she puts in during the project’s conception, allows the students to take the reins and steer the course in the thick of the learning. This approach also means that she is seldom seen dictating or instructing from the front of the classroom, but rather that she is in the mix with the students, accompanying them on the journey of learning. When asked to put into words her instructional role, she stated:

I would always like to be, and I’m not sure that I really always do this, but my aim is to be the person that is hard to find when you come into the classroom. And so my ideal situation would be that students are able to work independently without a teacher. I have set up things enough so that I can be working with one person and you come into the class and not automatically see where the teacher is.
I’m not automatically at the front, or I’m not automatically working with just one group, but I might be sitting with a child in an area. Nothing makes me happier than when parents come into the room and say, “Oh, I didn’t know where you were. I couldn’t see you there.” And that’s what I want.

Mrs. Inder also shared that she strives to create an environment in which students learn to become more intrinsically motivated. She speaks of wanting students to take ownership and be responsible for their learning. In Mrs. Inder’s classroom this starts with developing authentic learning experiences and forgoing very typical reward based motivational systems.

I want things to have an authentic connection, to be linked to the real world; I want them to be intrinsically motivated. We don’t use reward charts; we don’t have any kind of reward or sanction system within the classroom. If students are not focusing then they just move to a different spot, but sometimes if you’re not working during lesson time then you’ll need to stay and finish during recess, but I try to keep it to those kind of consequences rather than have a “one morning” a “two morning” “time out” and things like that.

Mrs. Inder displayed her desire to increase student motivation through consistent reminders about expectations on many different occasions. The incident described below, which highlights just one of many examples of nurturing intrinsic motivation, took place while the students were actively engaged in project time. Mrs. Inder, noticing that the volume level was increasing a bit, interrupted the learning and stated:
Okay, perhaps you’ve noticed that I have been giving you a lot of freedom in this project and I’m wondering now, if you could give yourself a number…. Out of ten, how hard you’ve been working, what would you give yourself?

She then pauses, noting the students hands in the air and the numbers they were displaying and continues, “Okay, so I see some tens, eights, a few nines, a five. So, for those of you that feel as those you’re very motivated, can you share some insight in what’s working for you?” Mrs. Inder calls on a few students. They respond with helpful study tips including finding a quiet, isolated spot in the room, using a privacy board, sitting away from their good friends, and many more. Mrs. Inder continues: “For those of you that find yourselves between a five and a seven, can you share some insights into what you are going to do to help get yourself more motivated?” The students quickly share their ideas and get back to work, having been reminded to stay focused and feeling motivated to do better.

**The Curricular Dimension**

The Sunset Cliffs network of schools consists of twelve schools ranging from elementary to high school. Armstrong Elementary is one of three elementary schools within the Sunset Cliffs network. All twelve of these schools share a universal curricular approach; that is, learning should be acquired through interactive, authentic, project-based experiences. Every aspect of the project-based learning approach is in the teacher’s
hands- from selecting a topic of interest to organizing and planning its delivery. While teachers are provided with a plethora of project examples, teachers truly have the opportunity to plan with autonomy and passion. Mrs. Inder eloquently summarizes this when she states, “What we do is look at the students, look at what we want the students to learn, look at what we’re passionate about and what they seem to be passionate about and build projects from that.”

Because I had the opportunity to observe at Armstrong Elementary both in the spring and in the fall of the following academic year, I had the privilege of being present during two different classroom projects. Although the organization is flexible, Mrs. Inder generally plans three projects per academic year, each lasting approximately 8-10 weeks in duration. The first project I witnessed, “Operation Story Cushion,” was created around one essential question: “How can we make a difference in our city?” In this project, students worked with a local elementary school to create “story cushions” for students whose military parents were, or would be deployed for long durations. After conducting interviews with the parents and their children, Mrs. Inder’s class created hand-sewn pillows that contained small audio devices that allowed the children to push a button and hear a personally recorded message from their parent. During this project, Mrs. Inder organized learning activities for her fourth grade students in hopes that they would learn about empathy and how it differed from sympathy, what actions they could take to make a positive impact in their community, the important role that memories play, fundraising, budgeting, interviewing, sewing, their community, and so much more. As with all
projects, the students documented and celebrated their learning experiences on their class blog and through their project exhibition.

With each new class project, Mrs. Inder creates a project sheet that outlines the scope of the project— from the essential questions, to details about the final product and the exhibition. In order to ensure students, parents, and visitors have access to a copy of the current project sheets, Mrs. Inder displays them outside the classroom, inside the classroom on the project bulletin board, and on the class blog. The second project I had the opportunity to observe was titled *Adventure, Adventure, Arrrgh*! Inside the *Adventure, Adventure, Arrrgh*! project sheet is a notable letter to students. Filled with enthusiasm, it is easy to recognize Mrs. Inder’s contagious passion for learning and adventure. She writes:

Welcome Adventurers, to the start of your fourth grade year, or should I say, your fourth grade adventure? This will not be your average year. Let me tell you more.

Through experiencing adventures and researching adventures, we will sharpen our resilience, hone our risk-taking, and develop strong support for each other.

Without these skills (and more) adventure is nigh on impossible. Without these skills, learning withers away. So, are you ready? Ready for the challenge… ready for the adventure… ready for fourth grade? I can’t wait to begin.

Love, Mrs. Inder (AKA Captain Adventure)

In this project, Mrs. Inder’s class explored California history, Greek mythology, and different characteristics of adventurers while also strengthening their resilience and their ability to support one another in the face of challenges. The students also took part
in several adventure activities including a hiking excursion, a rock-climbing outing, a camping trip, and a kayaking expedition.

Another noteworthy curricular choice that Mrs. Inder routinely makes is to hold Chalk Talk, a social-emotional activity devoted to students voicing concerns, suggestions, or praise regarding how the classroom agreements are being honored. The class gathers in the common area in the front of the school where Mrs. Inder has displayed large pieces of butcher paper, each with a different category to be addressed. The categories include “How to keep people happy,” “How to stay safe,” and “How to respect our supplies.” After a review of expectations, the students simply begin walking from poster to poster, writing suggestions, concerns, and feedback to other students’ comments. Mrs. Inder describes it as an opportunity for everyone to voice his or her opinion at the same time, without any talking. She uses this activity to gain insight into the social and emotional struggles and successes that students are experiencing. The students work, incredibly engaged for about 20 minutes.

During the formal interviews, Mrs. Inder and I spent a great deal of time discussing curriculum, specifically in her classroom and at her school site. When asked about whether her current academic setting provides her with an optimal curricular experience as a teacher, she paused ever so briefly and stated:

I love the teacher freedom and the opportunity to respond to our students, the fact that no one is looking over your shoulder at what you’re doing, but there’s a sort of… within Sunset Cliffs as an organization and Armstrong Elementary as an organization, I think more so within the groups of schools, I think there’s a
healthy competition and a sense of shared mission that we want to be working for our students. We want to be able to move them forward and have really authentic learning experiences, which they can connect to the real world… they can have fun and explore and do something that is really high quality, but no one is telling me what to do and how to do that. It’s just a shared mission, but also wanting to do something as good as someone else. I would hate it if things got more rigid or refined.

Learning is hard.

Each morning, Mrs. Inder and her students devote class time to playing “ice breaker games” with the intention of raising student energy levels and boosting excitement. One Monday morning that I observed, the students had just completed their morning assignment at their desks, when they were beckoned to their morning meeting in the front of the classroom with cheerful music. Once everyone was seated, Mrs. Inder asked the students to “spend some time talking to your neighbors in the circle about why it was so difficult to get to work on an assignment first thing on a Monday morning.” Taking the job quite seriously, the students spent time conversing in pairs then turned back to the circle and weighed in on the challenges they were experiencing. Most reported feeling tired while others said they were experiencing a lack of focus because they had done so much over the weekend that they just wanted to spend time sharing the details with their friends. Mrs. Inder thanked everyone for their thoughtful feedback and insisted that she thought the best solution was to play a game of Bop, Zip, Zap to “increase energy levels on a Monday morning.” After a quick review of the rules, the
students were cheerfully engrossed in the game. Within minutes, the once quiet and somewhat uninspired classroom had morphed into a space filled with abundant energy and laughter.

During the two weeks I spent observing in the classroom, I had the pleasure of witnessing and participating in at least seven different games and songs. I inquired about Mrs. Inder’s rationale behind playing the different games during our formal interviews. Without the slightest hesitation, she instantly began talking about the level of difficulty in the process of learning and how vital it is that students bring positivity and confidence to each task.

I feel like if you start off the day feeling excited and doing something that has no pressure, it’s just fun and it’s going to make you laugh, you’re able to bring that positivity to everything else you do. I really value that here. People really are positive and it does make a difference. And it’s great because we have a couple of autistic kids in here, so for them to be reading people’s facial expressions is really important, and then for them to feel like they’re working together as a class is really important, and it’s fun and they’re trying to strategize, so there’s a number of things going on, but mostly it’s because it’s fun. It’s worth spending fifteen minutes or five minutes on the game for the rest of the day. Learning is hard. That’s the one thing I keep remembering now that I’m in grad school. When you’re having to put yourself through new things all the time, it’s not easy. You’re in a really vulnerable situation and you need to have all that positivity and
confidence and know that people are going to push you, but they know you in order to make yourself vulnerable to be able to learn properly. It’s not easy.

**Odysseus is reborn.**

It is after lunch and I return to the classroom to find Mrs. Inder fashioning a crown and a shield out of yellow construction paper. Enthused, she explains to me that during the whole class reading time, she plans to allow the students to interview her while she plays the role of Odysseus. Moments later, the students are back from lunch, gathering on the rug in the front of the classroom where Mrs. Inder sits, already deep in character. They sit at Mrs. Inder’s feet, giddy with anticipation. Student hands fly quickly into the air as Odysseus states that the interview may begin.

“Is it true that you came up with the idea to make the Trojan horse?” asks one student.

“Yes. My cunning knows no bounds. I’m proud of it, but I’m also disgusted that we were even part of that war and that it didn’t get me home.” replies Odysseus.

“Is anyone more cunning than you?” asks another student.

“Of course not.” Odysseus bites back.

“What if someone thought they were more cunning that you?” the student eggs on.

“They’d be wrong.” quips Odysseus.

The students are completely engrossed, giggling at Mrs. Inder’s responses and her role-playing, but she acts on, deeply in character. Each time she answers another question at least 15 student hands shoot up into the air begging for the chance to ask another
question. Sometimes they giggle. Sometimes they simply smile. Each time Odysseus responds to the laughter in the same way: “I see nothing funny about this.”

After fielding a few more questions, Odysseus then quickly exits, wearing the crown and carrying the shield. As she storms out she looks back over her shoulder and states “I’m sorry. I have to be off now. I have battles to fight and people to lead. I’m a busy man.” With that, she exits, drops her props and almost immediately re-emerges through the classroom door as Mrs. Inder states, “Have you seen Odysseus anywhere? I haven’t seen him. Have you?” The students cheer loudly.

“Alright, let’s read on and see what happens next,” she exclaims as she takes her seat. The students quickly grab their books and begin reading along with her. They’re completely engrossed with their heads down, following along, pausing to ask questions.

Closing Thoughts

The power of words.

I found myself so compelled by Mrs. Inder’s articulate vernacular that I spent an entire day of observation simply recording direct quotes from student-teacher interactions. I share many of these quotes and their significance below.

Mrs. Inder routinely spends time challenging the students to be resilient and to believe in themselves. Sometimes her words are direct and straightforward such as, “You remembered it. Believe in yourself.” Or, “I bet you can think of something because I know you and you’re going to be resilient and keeping thinking of a solution.” At other times, Mrs. Inder is simply there to push them to take risks in learning and to remind them that failure is okay in the safe environment she has created. She encourages one
student by stating in a very matter of fact tone, “Alright, go ahead and give it a go. If you make a mistake then you are learning and you are stretching your brain." In another example, Mrs. Inder highlights the courage two students showed when they volunteered to present their math reasoning in front of the class before having an opportunity to work on it on their own. “You guys should be feeling quite fabulous right about now because I know you were taking a leap. Let’s give them a round of applause.”

Mrs. Inder is also quick to keep students motivated by complimenting their efforts. I witnessed this multiple times throughout my visits. On one occasion, the students were sitting in a circle on the rug participating in their morning meeting. Mrs. Inder had just asked them to talk to their neighbor about their upcoming class camping trip, when she signaled for the attention by softly ringing a bell. The students quickly quieted and turned their bodies toward her to which she responded: “Do you know what, at the beginning of the year when I would have rang that chime, you would have carried on being excited and having side conversations. Look at how much you’re improving. You should be proud.”

Summary

Observing Mrs. Inder in the classroom was an incredible joy. I was energized by her compassion for students, her unyielding devotion to creating an incredibly engaging environment, the thoughtfulness she applied when creating stimulating projects, and her genuinely positive nature that kept students motivated and encouraged to conquer the difficult task of learning. It was obvious that students who were fortunate enough to be under her guidance and care were thriving. Interviewing Mrs. Inder was also an enriching
experience as she so eloquently expressed her beliefs about the practice of teaching and learning. Her innately reflective nature allowed for rich conversation and insightful conclusions.
Armstrong Elementary, Mrs. Marie

Mrs. Marie is also a teacher at Armstrong Elementary School. Because Armstrong Elementary was described in detail above, I will move directly into my individual reflection of Mrs. Marie’s teaching and learning environment.

Mrs. Marie holds an undergraduate degree in business from the University of North Carolina, Chapel Hill, an MBA from Wharton at the University of Pennsylvania, and a multiple subjects teaching credential from Point Loma Nazarene. She worked at Hewlett Packard and consulted in healthcare and technology prior to pursuing a career in education. While exploring the possibility of changing careers, Mrs. Marie worked as a music teacher and Jewish Studies teacher at a local private school for two years. After earning her teaching credential, Mrs. Marie then worked at a local elementary school for ten years teaching fourth, fifth and sixth grade. She left that teaching position for her current position at Armstrong Elementary in order to be exposed to and practice project-based learning in the classroom. She is now in her sixth year at Armstrong Elementary where she currently teaches fourth and fifth grade, looping with her students every two years.

Vibrant, passionate, and full of energy, Mrs. Marie captivates the attention of every child in the room from the moment she enters the classroom doors. With her petite frame and shoulder length, curly, auburn colored hair, Mrs. Marie bustles about with liveliness, greeting all visitors with a smile and a hearty “Welcome!” With her knee length shift dress, trendy blazer, and stylish flats, Mrs. Marie’s style is practical, yet
professional. Her tone is quick-paced, filled with determination and a subtle sense of urgency. Cheerful and spirited, Mrs. Marie exudes enthusiasm.

The root of inspiration: The process of Learning.

As noted earlier, Mrs. Marie came to teaching as a second career. During her time at Hewlett Packard, Mrs. Marie had children and instantly became captivated by the innate process of learning she witnessed while caring for them. In hopes of getting more involved and learning more about the developmental stages of learning, Mrs. Marie began spending one day a week volunteering in her son’s classroom. Below, she explains the way in which her interest in pursuing a teaching career unfolded.

I had a very precocious first child- in terms of learning- and I was fascinated by how he was learning to read and so interested in everything and so I started volunteering. I started working four days a week at Hewlett Packard and I would volunteer the other day of the week in his classroom. And I just loved it. It was such fun. And then I decided I didn’t want to work in business anymore and I wanted to go to grad school.

Convinced that being in the classroom and aiding in the process of learning for young students was the right fit for her, Mrs. Marie enrolled in a credentialing program at Point Loma Nazarene, a well-established private university in San Diego. As it was sixteen years ago, the most compelling part of the job for Mrs. Marie is still watching students engage in the process of learning and exploration.
Working with my children, to me, is still the most fascinating thing, is how do you enthuse people and get them excited about learning and to continue asking questions and I just find that whole thing fascinating because that’s what I like to do myself. They (the kids) are wonderful too. You can’t really ever go home and have a bad day.

**On Creativity.**

When I asked Mrs. Marie to speak on the topic of creativity and to explain how she viewed the multifaceted term, she immediately isolated the act of being enthusiastic as an integral piece of creativity.

I think creativity comes from being enthusiastic, and purposeful almost. Like to get the kids really excited- like “Oh my gosh, I saw this article!” To me, that’s my job- to be the cheerleader. I think that enthusiasm and safety to do that so you can go, “Well, what if I tried this?” and showing that you don’t know how to do things but you’re going to try them.

Mrs. Marie also touched briefly on her background as an accomplished pianist, stating that she uses her personal experiences to talk about creativity with the students and to encourage and inspire her students. She explains that she wants her students to know that everyone is talented in a multitude of ways, and that their talents are worth sharing and celebrating. Lastly, Mrs. Marie describes an additional layer to her personal definition of creativity when she speaks to the notion of not only being curious, but
putting curiosity into action and applying creative problem solving skills. She routinely models this for her students.

… And asking that next question- I think I said that at the very beginning. I’ll say, “I read this article." And then I’ll say “Oh, I’ve got to go look that up!” I Google whatever it is, and then there’s three more things, and then I buy a book. I try to model that, that’s what I do. So, when you’re reading and you have a question, what are you going to do about it? Just say, “Oh yeah, I have a question." Or, are you going to go further with it and keep asking?

When I asked Mrs. Marie if she thought of herself as a creative adult, she once again began wrestling with a definition of creativity prior to committing to labeling herself as creative. While Mrs. Marie acknowledges that most people associate creativity solely with the visual and performing arts, and to those truly rare artists that have inspired billions of people, she views creativity more broadly and holistically. On multiple occasions during our interviews, Mrs. Marie spoke of creative problem solving and grappling with complex issues as the form of creativity that she connects most readily with.

I consider myself a good problem solver. I like to do that. I like to have the challenge of situations that might be complex. I like to look at the complexities of things. I’m very interested in how groups cohere together. Like in an organization- what makes it work and what can imbalance a system immediately? Like someone makes a top down decision and we all thought there were other norms. What does that look like and how does that impact the whole school
system? So, I like to look at the complexities of things, I don’t know if that makes me creative or not, but I’m intrigued by the complexity and the gray of things and how we can help people.

**Challenges and rewards of teaching in today’s world.**

Mrs. Marie approaches teaching, and life, with a fresh, invigorating spirit filled with enthusiasm and passion. She exudes confidence and high energy as she moves quickly about the classroom. Her teaching is quickly paced, focused, and incredibly upbeat and so too, are her responses to questions I posed during interviews. When questioned about the greatest challenges of teaching in today’s world, Mrs. Marie pauses ever so briefly and then candidly describes the difficulty in the administrative changes she has experienced while at Armstrong Elementary. Having began at Armstrong Elementary with its founding principal, Mrs. Marie has experienced three administrative changes and numerous policy changes in her six years at this school site.

We have had a lot of change in the last couple of years. Our former principal left in not so wonderful circumstances. And that’s why I came here, to work with her. Then we had kind of an interim person, and then we went through this big search and now we have this current principal and I think with any organization, we were kind of lacking some systems that would exist regardless of who was there, so creating those systems outside of the classroom to be supportive, has been probably one of the biggest challenges with all of our change. They had sort of a family feeling, and so how do you bring someone in new and where are the
professional boundaries and then, people are friends, so this is a very interesting transition that we’re really making into having a professional development committee and having a math committee and having people that come together for professional purposes not just to go have a beer.

Mrs. Marie states that her background in business and her experience teaching at a more established school district allowed her to greatly contribute to the dialogue of Armstrong Elementary needing additional support systems in place to sufficiently meet the needs of all students at their school site. Thanks to her input and the input of other teachers and administrators at Armstrong Elementary, these support systems are now in place at their school site.

One last challenge that Mrs. Marie references is the difficulty in balancing working as a grade level team while still maintaining the autonomy of planning and teaching that Sunset Cliffs Schools are modeled after. Teachers at Armstrong Elementary are encouraged to work across grade levels to project tune, which means they are expected to discuss project details including everything from project objectives to plans for exhibitions. At the same time, teachers are also expected to develop projects based on personal areas of passion and interest. Mrs. Marie describes this difficulty below:

And that’s another challenge, like- what is a team? Because the Sunset Cliffs philosophy is that teachers are very independent creators of what they do. So, in a project-based situation it’s based on teacher passion, maybe your abilities, you know- you always wanted to learn to garden or whatever, and how does that work in a team? So that’s another challenge that we have.
When asked about the greatest rewards of her career in teaching, Mrs. Marie answers without hesitation.

The kids. Just the connection with kids and the “ahh-haa’s” and the learning, the improving, feeling good about themselves, figuring out how to resolve conflict. This age I really like because they’re figuring out how to be a little bit more independent.

**Physical Environment**

It is early on a Monday morning when I first enter Mrs. Marie’s classroom. Mrs. Marie notices me entering the classroom and quickly greets me by the door. With a cheerful smile and an outstretched hand she says, “You must be Kari. It’s so nice to finally meet you. Make yourself comfortable. Anywhere you can find a place to sit is fair game!” I walk toward a somewhat vacant corner of the classroom and find a blue, plastic chair to call home for the next few days. As the students join Mrs. Marie on the rug in the front of the classroom, I begin to take note of the physical environment that surrounds me. The back wall, which is closest to the door, is designated as the math wall. It is covered with student created graphs on large chart paper, notes about baseball statistics, and a list of suggestions for math websites. To the right of the graphs is a small section devoted to student’s poetry.
Mrs. Marie’s desk occupies a small space in the corner of the classroom, alongside the math wall. Although she is quick to joke about the piles of work and student projects that occupy her space, her desk appears organized and tidy.

The adjacent wall is lined with bookshelves, floor to ceiling cabinets, and a few student projects that have been left on the countertops to be revisited at some point. The front wall has one large white board in the center, a pull down projector screen, and a few
t-charts organizing the student’s thoughts on parallels between two books they recently read together. A small purple sign lists the classroom listening agreements. There is a blue rectangular rug in the front of the classroom used as a gathering space for the students. To the right of it is a modern chair used by Mrs. Marie during classroom gathering times. The rug is centered on a large whiteboard and a pull-down projector screen.

Image 15: Mrs. Marie, Classroom Layout 2

School-wide rules and expectations are posted on an adjacent wall, detailing how to handle different times of the day such as recess, lunch, hallways, gathering, Wednesdays, and gatherings. To the left of these signs is the daily schedule, written with very little extra information- the date, the activities, and a few time slots are listed. Also along this wall are bookshelves, most of which only go a ¼ of the way up the wall. The new Chrome books rest on top of the wooden shelves. The clock is nearby the schedule, just to the left of the door.

Most of the furniture in the classroom is made of blond wood. The students sit in groups of four at round tables spaced about the classroom. They sit on blue plastic chairs
with metal legs. Most student’s backpacks hang on their chairs while some sit at their feet, nestled under their chairs. On each table is a caddy filled with students supplies—pencils, pens, erasers and other supplies the students use regularly. The ceiling has exposed pipes and ductwork and long strips of fluorescent lighting.

Interestingly, when asked to reflect on the physical environment of her classroom, Mrs. Marie hesitates briefly and provides a rather straightforward and simplistic view of the learning environment she has created.

Well do you like all the piles I have going over there? I like their stuff to be up on the walls. I like that it’s fresh and clean. I definitely like it to be cheery, primary. I mean, I don’t know. It’s very messy right now. As you look around you see I had them make their own borders. I like them to come in and it’s their own room; that is one thing. So they painted their own bulletin boards. They made our number line. I like things that the kids made.

Neither right or wrong nor good or bad, it is apparent that the physical space is not a top priority to Mrs. Marie. Her reflection of its importance is extremely concise. While she jokes about the clutter, she also shares that she sees value in displaying student generated work in hopes of having students more invested in the process of learning. She notes that she wants the students to feel like it is their space.
Let’s Get Busy Enjoying Ourselves.

In hopes of shedding light on Mrs. Marie’s intentions and goals for her students, I asked her to share the intentions she has for her students. Not surprisingly based on the lighthearted, enthusiastic way she carries herself in the classroom, Mrs. Marie answered that fun is of utmost importance to her.

I think fun is the first thing. Like the fun of learning and being a little more self-reflective than when they came. Just the fun of a community. That you can build a community and that you have a lot of influence about that. You can speak in a particular way that makes people feel like they’re safe, which is what I love about this school; that that’s honored in our whole school. You feel it. That the kids feel honored and that they have fun. But fun is really important to me.

Mrs. Marie’s intentions are also easily recognized in her approach to teaching. Although she does not explicitly write or state her intentions to “have fun and create a safe environment,” her students display a casual, comfortable approach to learning. They laugh, joke, and smile alongside Mrs. Marie throughout the day. Mrs. Marie helps create this environment through her caring interactions with students. From a subtle rub on the shoulders to a simple, yet thoughtful dialogue, Mrs. Marie is consistently showing her students that she cares about them and the experience they are having in their classroom. She laughs with them, shares their joy and shows enthusiasm for their ideas. This is as present in her actions as it is in her dialogue with the students. Below are a handful of
quotes I noted during classroom observations. These quotes are all exchanges between Mrs. Marie and her students and are shared to highlight the care and the “fun” that is present in her words, in her everyday interactions.

As students crowd around her and quickly invade her personal space, she responds with a subtle “I’m so popular, I can hardly stand it!” The kids giggle and she lets out a short, quick smile.

On another occasion, a student approaches Mrs. Marie and somewhat timidly and shyly asks “Mrs. Marie, can I share something with you?” Without hesitation, Mrs. Marie stops what she is doing, looks directly at the student, smiles, and responds with enthusiasm: “I would totally love to see it.” The student smiles and confidently begins sharing her work with Mrs. Marie. The exchange is simple, but the message is powerful. The student feels valued and important. On another occasion, a student runs toward Mrs. Marie, bounces about with enthusiasm and states: “Mrs. Marie, I have a good one!” Mirroring the student’s enthusiasm, Mrs. Marie excitedly responds “What, what, what?!” The student smiles, shares writing from his journal and she promptly answers, “Oh, I like it!” True to her stated intentions, Mrs. Marie embodies fun and excitement.

As Mrs. Marie quickly moves around the room, organizing supplies for the next activity, the students are engaged in independent reading. Ever so subtly, she occasionally stops to redirect students that are losing focus and she casually checks in with those who are deeply engrossed in their reading. She stops at one student’s desk, lightly touches her shoulder and asks, “Do you like that so far?” The student responds with a simple smile and a genuine head nod noting that she is already utterly convinced
the book was a great choice for her. Mrs. Marie then continues moving toward the front of the classroom, stopping once again to check in with a student who is lying down, quietly reading in the corner. “You doing okay?” she simply asks. Once again, the interactions are simple, but in her simple dialogue, Mrs. Marie shows students she cares about them and their experience.

Mrs. Marie’s intentions are also present in the work she chooses to display around the classroom. At the time of my second series of observations, which took place at the beginning of the school year in the fall, I notice three posters posing questions to the students. The questions presented include:

- What are you most excited about this year?
- What will I need to do to help you this year?
- What will you need to do to be successful this year?

The students responded to the questions individually on post-it notes. The activity is simply another example that Mrs. Marie is invested in the students, their interests, and their needs.
Image 16: Mrs. Marie, Intentional Poster 1

Image 17: Mrs. Marie, Intentional Poster 2
The Pedagogical Dimension

*The teacher’s instructional role.*

Mrs. Marie strives to create a learning environment in which flexible thinking, freedom of choice, and self-regulatory behavior are routinely practiced. She recognizes that student’s needs are broad and she does her best to tailor the learning environment around those needs. I observed students in Mrs. Marie’s class working in a number of creative spots around the classroom. If it helps them to focus, students are encouraged to stand at their desks, sit or lie down on the rug, or find a quiet nook somewhere in the classroom. On one occasion, I observed a student reading under Mrs. Marie’s desk during independent reading time. When asked about this, Mrs. Marie recalls a time in which a parent questioned her about her approach.
I remember a parent saying to me “You mean you’re not going to make him sit down.” And I was like “No. If he needs to do his math standing up, then like whatever.” And I would say that is the beautiful thing about this whole village. There’s not a bell, you don’t have to sit down all the time. It’s a little bit more free. And yet, you still have to have that self-regulatory behavior because if you’re given parameters that are this wide (motions with hands) rather than this wide, you have a lot of time to mess around.

During my classroom observations, I witnessed students working in a variety of grouping strategies- from pairs, to small groups, to whole class instruction. The students responded well to the freedom and flexibility they were given in grouping arrangements. While a few students needed occasional redirecting, the majority of students in Mrs. Marie’s class were able to successfully navigate group work without losing focus and becoming too social. The small group instruction I observed took place during project time in the afternoons. When I asked Mrs. Marie about her approach to grouping strategies, she responded by stating her preference is that students work in small groups throughout the day.

I really, really prefer that kids work in small groups. And with our new principal, he is really into the workshop model where everyone is sharing their ideas together and I think not everyone’s voice gets to be heard then.

Lastly, when asked about her pedagogical approach to teaching, Mrs. Marie discussed the challenge of allowing the students to be creative with their investigations in learning, while at the same time teaching them how to take their investigations further, to
question more deeply. She feels strongly that she does not want her students to simply store and regurgitate facts, but rather, she wants them to apply their knowledge in a practical, resourceful way. She describes this point below.

So that’s an interesting dance between that freedom of creativity where there’s not a right answer. I think it’ll always be a pendulum with different kids and at different times. You know? Okay, now you know that. Now what? What’s the next question? You know that 42,000 trees get cut down every day. Okay… and? What does it make you think next and how are you thoughtful? Could you play around with something? Could you look at different organizations? There has to be something else or you’re just stuck with a fact, which is the same old, same old.

**The Curricular Dimension**

In the previous section I provided a description of Mrs. Inder’s learning environment and her approach to curriculum as encouraged by her school site. Working on the same grade level team at the same school site inevitably means Mrs. Marie works within very similar curriculum parameters as Mrs. Inder. In fact, all teachers at Armstrong Elementary are strongly encouraged to implement a project-based approach to learning, but because teachers are given an incredibly amount of autonomy in the planning process, the scope and sequence of the projects varies a great deal from classroom to classroom.
Mrs. Marie and I spent an afternoon talking about her curricular approach and the school-wide curricular vision. She shared that the school is in a transformation stage in which they are strongly encouraging all teachers to move to an integrated project-based approach. Mrs. Marie states that some teachers are already where they need to be in terms of project integration, but others are just now getting up to speed. She reiterates that project-based learning has always been something the teachers at Armstrong Elementary have done, but now they are looking to ensure all projects are authentic and that they are more streamlined across grade levels.

Over the course of my observations, Mrs. Marie and her students were engaged in two different units of study. During the observations I conducted in the spring, the students were studying the Olympics and its host country, Russia. This was evident based on student created poster boards that adorned the classroom walls. Besides the poster boards and the designated “project time” on the schedule, there was little evidence of other integrated project experiences. This was also the case when I observed in Mrs. Marie’s classroom in the fall of the following school year. At that time, students were engaged in a project centered on poetry.

When I inquired with Mrs. Marie about her ideal curriculum setting and whether or not she would change anything at her current school site, she answered confidently:

I would like it to be more kid-oriented. I don’t think it’s through the lens of a child. And I think when you have that individuality, like all of a sudden we’re doing some of the stuff they did last year in third grade. So I think we need some planning across the board and I think if we all talk about projects early in the year,
that will be good. Because then maybe you can tweak a project to take a different road. I’ve seen other programs where they’ve had kind of like three year rotations of concepts that I think is nice for children.

Closing Thoughts

One afternoon, after the school day is complete, Mrs. Marie and I sit down and begin talking rather casually about my study. We briefly recap on the day and discuss where we left off with our interview the day before. With enthusiasm, Mrs. Marie explains to me that she was thinking a lot about my study yesterday and she was reminded about an activity she is currently doing with her students. “Oh, I want to share our ‘little man’ with you!” she exclaims.

Image 19: Mrs. Marie, Intentional “Little Man”

Mrs. Marie informs me that she has been working with her students and the other teachers at her grade level to create a shared language about social and emotional expectations. Having come across the image of the “little man” during a professional development training, she immediately felt as though it was a great fit for her classroom.
The words encapsulated in the middle summarize desired student outcomes. They include:

- *I am a passionate and active leader.*
- *I am a creative and critical thinker. I am determined and resilient.*
- *I am connected to the community.*
- *I am motivated to do the right thing.*
- *I am able to share my views and listen to others.*
- *I act with kindness.*

**Summary**

Each day I arrived in Mrs. Marie’s classroom I was cheerfully greeted and made to feel at home. During classroom observations, I was routinely captivated and engaged by her unyielding enthusiasm. I found Mrs. Marie to be a passionate educator, daring to enrich her students’ lives by showing immense compassion and by allowing them to enjoy the educational journey to its fullest.

**Response to Description from Mrs. Marie**

You are such a strong communicator! Wow!

I really enjoyed reading about myself as a teacher through your eyes... gives me a lot to reflect about as I am moving to a new elementary school. I am really excited about building a new learning environment and know it will be really challenging. Thank you for all of your thoughtful observations and for sharing them with me. I hope that you are pleased with the work you have accomplished.

Come visit next time you are in San Diego!

(Personal Communication, April 19, 2015)
Destination Innovation

Destination Innovation is a public elementary school in the Denver metro area serving approximately 200 students in Kindergarten through fourth grade. Destination Innovation opened its doors just three years ago after being granted innovation status by the state as part of the Innovation Schools Act, which was passed in 2008 in order to “provide a pathway for schools and districts to develop innovative practices, better meet the needs of individual students and allow more autonomy to make decisions at the school-level” (Colorado Department of Education, 2015). With innovation status, Destination Innovation has the flexibility of creating an innovation plan aimed at improving student outcomes. This plan is then presented to the school board for approval. This innovation status provides the teachers and administrators at Destination Innovation with great flexibility and autonomy, which can be difficult things to achieve within a large school district.

By the 2015-2016 school year, Destination Innovation will reach its full capacity in terms of grade levels, offering Kindergarten through fifth grade. It is the first school of its kind in the Rocky Mountain School District, offering students rigorous academic programming with a focus on developing critical thinking by explicitly teaching creativity and engaging in community partnerships. With its unique focus and school vision, Destination Innovation attracts students from many surrounding neighborhoods and students are enrolled based on a lottery system. Currently, 15.3% of the student population is receiving free and reduced lunch, 4.7% of students are learning English as a
second language, 6.8% qualify for Special Education services, and 9.5% of the student population are of minority descent.

Also notable, at Destination Innovation, teachers implement content specialization, in which they master specific content areas in conjunction with a co-teacher at the same grade level. This allows teachers to hone in on three core subject areas rather than trying to master all potential content areas. For example, a second grade teacher may teach math, science and social studies while the other second grade teacher focuses on reading, writing and spelling. The students rotate between the two co-teachers for the varying subjects.

Destination Innovation shares their learning space with a local middle school. Because of this, the space is rather non-traditional for an elementary school. Upon being buzzed into the building, I’m immediately confronted with a decision to head upstairs or downstairs. As I walk up the stairs, I notice a somewhat obscure sign directing me to the office. The front office, where a receptionist and the school principal reside, is unconventional; it appears to have been reconfigured from its original purpose, which is still unknown to me. The receptionist greets me with a warm smile and a sincere “Welcome.” She then points me toward Ms. Nunes classroom. As I enter the main hallway space, I notice it is lined with lockers from floor to ceiling. Above the lockers are inspirational quotes such as “Tell me and I forget, teach me and I may remember, involve me and I learn.” - Benjamin Franklin” The younger primary classrooms are located downstairs while the 3rd and 4th grade classrooms are located upstairs.
Ms. Nunes

Ms. Nunes was born in Rhode Island, began her early education in Minnesota, and moved to Fort Collins when she was in third grade. She then attended Seattle Pacific University, majoring in art. After spending a handful of years traveling the world, Ms.
Nunes began an internship-credentialing program at a private school in the Denver-metro area. She speaks highly of this experience, sharing that it was an “amazingly creative” environment in which the entire community was deeply rooted in a shared mission. While completing her masters degree at CU Denver, Ms. Nunes worked as an assistant in a 2nd and 3rd grade classroom at a public school focused on expeditionary learning. She was then hired at Destination Innovation as a 2nd grade math and science teacher. She is currently in her second year of teaching at Destination Innovation.

During one of the interviews, Ms. Nunes shares that the Public Educators Business Coalition, an educational organization based in Denver and devoted to cultivating educators and strengthening education, has played a vital role in shaping her as an educator over the past year. Ms. Nunes has participated in several workshops as part of a mentorship program through PEBC. She greatly values these experiences, stating that the master teachers involved in the program acknowledge her strengths and encourage her to grow as a professional.

When I inquired about whether or not involvement in this organization left her with a new certification or qualification of some sort, Ms. Nunes responded saying, “No. This work is more just for my own growth because I really like their organization and I want to be involved with them in any way I can.” Lastly, Ms. Nunes summarized the importance of PEBC by stating, “Those experiences through PEBC, they are very innovative and very progressive and they just are really pro teacher. They make me feel as though I have strengths and they want to build those strengths.”
Ms. Nunes walks about the room in a hurried pace, frequently looking up at the clock to monitor her seemingly busy schedule. Her dark brown curls are pulled back, exposing her warm smile and cheerful eyes. She exhibits a balance of seriousness and casualness, pausing occasionally to laugh with the students. The students seem aware of this balance and feel comfortable laughing and joking with Ms. Nunes. One afternoon during my observations, I witnessed Ms. Nunes introducing a new project to the students. First she wrote a few new math vocabulary words on the whiteboard. Then she turned to the students and said:

“Okay, so I brought this book with me today to read to you because it’s about two of my favorite things.”

One child shouts, “Cookies!”

“Cookies and Division!” shouts another.

“Donuts!”

“Goats?”

Ms. Nunes laughs and responds, “You know me too well! It’s about cookies and division.”

Through detailed observations, it becomes very apparent to me that Ms. Nunes has created a very comfortable atmosphere in which the students feel safe to laugh, take risks, and be themselves.
Ms. Nunes comes from a family of teachers, which is one of the reasons she briefly pursued teaching in college. After taking a couple of teaching courses, she officially decided to become an art major as she found the teaching courses to be rather "boring." She recalls this experience with a comical, heartfelt tone.

My mom and sister are both teachers and when I was in my undergrad, I took a couple classes, for one quarter, to pursue that and then said “No! That is boring! I don’t want to do that!” I was an art major instead.

After earning a fine arts degree, Ms. Nunes spent a few years traveling around the world. When it came time to pursue a career, she found herself torn between two possible decisions.

After my undergrad, I was really thinking about the next steps and thought a lot about the two directions I could head- either into the design world, or I knew about the Denver Primary program and that is what really intrigued me because their approach is so different. I remember talking to one of my best friends who is a designer and he said, “You know, if you’re going to be a designer, you’re either going to be in an office that is a really competitive world to be in, or you’re going to work by yourself in your house. I think you would be much more drawn to being in the community of a classroom. That’s what you are drawn to and what you love." And after he said that, I said, “You are right!” I would hate to either be by myself or somewhere where everyone is just at each other’s throats all the
time. So, once I realized that, I knew the Denver Primary program was the only way I really wanted to pursue that because they are so different.

**On Creativity.**

Coming from an educational background rich in creativity and artistic studies, Ms. Nunes adds an interesting perspective to this study. When I first asked Ms. Nunes about her thoughts on creativity, and specifically how she would define the word, she paused briefly, and hesitantly answered:

That’s a good question. I think that everyone has the capacity for creativity and I really feel like part of my job at a school that values creativity is to support kids in exploring that.

She then subtly laughed, seemingly surprised at the complexity of the question and the simplicity of her answer. We talked casually about the challenge in defining a word that is so broad and so often misunderstood. We both agreed that in its most simple form, creativity often gets labeled as simply being quirky and different. This topic was of great interest to Ms. Nunes as she feels strongly that creativity is deeper and more complex than this simplistic view. She also shares that this is a constant struggle she deals with as some of her administrators, fellow teachers, and invested community members share this simplistic view of creativity being quirky and different. Ms. Nunes prefers to think of creativity in terms of innovative problem solving and applied critical thinking. Ms. Nunes describes her perspective and its application to teaching math.
I see it more as problem solving and innovation in solutions and I think for me as a teacher where I really value that and make sure that my kids understand I value that is in math. There are 10 million ways to understand a concept, and as long as you can show me in your own way, and you can teach me this way that you’re understanding this concept, and I can see that you got it- I don’t care how you get to the answer as long as you can prove that your strategy is going to get you to the answer. And for me, that’s what I want to approach creativity, with that rich thinking process. Teaching an algorithm to kids on how to learn addition, is not how I approach teaching…. I just don’t want to teach them just one way on how to arrive at an answer. I think learning happens in the process. Persistence too… I think it’s much harder to teach and the work up front is much harder for kids because they do a lot more of that heavy lifting and generating. Which, personally, is how I think it should be.

When I asked Ms. Nunes if she finds it important to nurture her creativity as an adult, she answered with confidence that she does.

I absolutely do. For me, I was raised to be a very independent thinker. Both of my parents are incredibly creative and artistic and their jobs don’t include that. My mom is a teacher and my dad works in sales and marketing, so they don’t have a lot of that at work, but I think I really grew up with the value of problem solving and independent thinking. I think as an adult, really what it’s prepared me for is I just approach problems differently and I don’t…. my outlook is just very different, I think because of that value I had growing up. Whenever I can be in
classes or practice on my own, that’s just my way of working my brain out or something. But, I think it’s important to be creative in problem solving. I think I often choose to challenge myself in small ways to just kind of keep it up in any way I can.

**Challenges and rewards of teaching in today’s world.**

Ms. Nunes and I spent a lengthy amount of time discussing the challenges and rewards of teaching that she encounters working at her school site and within her district. While the challenges are trying and burdensome for Ms. Nunes, she is also able to pause and appreciate the positive things happening around her. For example, she mentions that she greatly values the autonomy and independence she is given by her administrators at her school site.

I think just having the freedom I have, which I feel like is so unique and I feel so grateful for that, but that keeps it really interesting because when I want to make changes, I just can.

She expresses that the freedom she is given makes her feel trusted and valued by her administrators while it also keeps her job more interesting as she has the flexibility to morph and reorganize the learning experiences as she sees fit. She also shares that she is greatly interested in the cognitive development of her students and how that can guide her craft of teaching.
I have a masters in education psychology, and so cognitive development is fascinating to me. And the constant challenge... like, where are these kids developmentally and what is characteristic of their age that I can cater to as their teacher? That’s really interesting to me- for example, what appeals to third graders because they have a need for justice? And then learning how to use those as our strengths in the classroom. I find that very interesting.

On multiple occasions, Ms. Nunes expresses frustration and dissatisfaction with organizational issues at Destination Innovation. She shares that the teachers are often left in the dark in regards to planning, particularly every Friday when the administration is in charge of organizing their schedule due to whole-school curricular activities, rotating time with specialist teachers, and school-community partnerships. Ms. Nunes acknowledges that these challenges are heightened because Destination Innovation opened its doors just three short years ago and its mission and innovation status are relatively unique; however, regardless of the reason, this is a huge frustration for Ms. Nunes. Acknowledging this frustration, she states:

And this is something that could have been planned ahead over the summer, but it’s never planned ahead and we find out Thursday night what our schedule is the following day. And it’s just… one of us every Friday just has a breakdown because it’s so stressful. I can’t plan my day! So, I just don’t count Fridays; I don’t plan for Fridays. I just have alternate plans, but it’s because we can never depend on instruction time and when I can, it’s usually my morning class that I’ll have for an hour and a half, and my afternoon class I’ll have for 20 minutes. And
I don’t think the administration understands why it’s a problem. They don’t understand why we can’t just have art at 2:00 instead of 10:00. It’s very frustrating. So, there’s a challenge!

Ms. Nunes also shares that while she loves the vision and mission of Destination Innovation, she struggles greatly with many dynamics of working in a district as big as Rocky Mountain Schools. She explains that decisions being made at the administrative level in the district greatly affect her ability to teach as she sees fit, while also hugely affecting school and classroom morale. Simply stated, she feels undervalued.

Working for RMS (Rocky Mountain Schools) is just deflating, and I don’t know how long I will be able to work in RMS. It’s so top-heavy. The message from RMS is consistently that teachers are doing the wrong thing or that we’re behind and we need to work extra hard to catch up. There’s never any acknowledgement of our strengths. And so, our principal does a really great job of celebrating us and making us feel like we’re doing the right thing, but then there’s just so much that the district mandates, like data entry, and stuff like that—just the constant messages that we don’t value you because we think you’re doing everything wrong and you need to make up for that. I think it generates just this sense... I feel like everyone feels like we’re working on a deficit all of the time and it just never lightens up. I think that is one of the biggest challenges, and that is why I don’t think I can stay in RMS for much longer.

Ms. Nunes also shares that being an innovation status school within Rocky Mountain School District has its own set of unique challenges. Ms. Nunes explains that
Destination Innovation’s innovation status puts them somewhere in between a traditional school and a charter school, in that, unlike a charter school, they do not have their own governing body. She also shares that regardless of its unique mission statement and innovation status, administrators and teachers at Destination Innovation are still required to adhere to many of the district norms and expectations. This can present a diverse set of challenges, particularly when it comes to state mandated standardized testing. Ms. Nunes explains that as part of their unique innovation plan, school administrators at Destination Innovation are able to create waivers to get out of district policies that do not fit with their school vision and philosophy.

There’s a lot of stuff we can’t get out of, but our principal has been very creative in using those waivers to give us the most ideal situation here. Last year we did the interims with the district, but that was so brutal. So, as a staff we just said “This doesn’t use our time wisely. It doesn’t align well with the philosophy of our school.” Kids were crying all over their assessments; it was awful. And then we don’t even get the data. It’s so painful to get the assessments graded. We had to be here until like 9:00pm one day grading assessments. Just the whole system was awful. And so, our principal signed up for something called the SCAN (Short Cycle Assessment Network). As a result, we do the districts interims, but until then we decide how the assessment is going to go. That has alleviated a ton of stress. That was too much for everyone. And now each teacher just writes their own assessment and we align them with the Common Core.
Ms. Nunes explains that students then take the district-required tests at the end of the year. And while she understands that it is certainly beneficial to have the ability to create waivers, she also stresses that accommodating all the district testing is still a large feat, particularly when the tests utilize technology, which is something that is not prioritized at their school site. Because of this, teachers are forced to use instructional time to teach students how to type and navigate a computer more easily. Ms. Nunes summarizes the challenges she faces as issues that are truly deep seeded district problems.

So, I think a lot of the challenges I’m feeling are really just part of RMS. It’s so big and cannot keep up. The mistakes that are made on higher levels fall down on teachers and then a half hour mistake up there turns into hours of work for every teacher. I think that’s a huge part of it- it’s just so diverse and it’s so big. I feel like it should be four districts instead of one giant one.

**Physical Environment**

I enter the classroom to the surprise of a substitute teacher who is filling in for Ms. Nunes while she attends a staff meeting. She introduces herself and says I can sit anywhere while I wait for Ms. Nunes. I find a vacant desk in the corner of the classroom and begin taking in the environment that surrounds me. The first thing that catches my eye is the unconventional student seating arrangement and seating options. Three large
circular group tables occupy the main space of the classroom, seating four students at each table. There are also single desks that have been pushed together to make groups of two and three in various spots around the perimeter of the classroom. Toward the front of the classroom is a standing desk, which allows one student to either stand while working, or sit on a taller chair while resting his or her feet on a metal bar that swings freely back and forth. From the surface, this appears to be a occupational therapy tool, perhaps for a student struggling with sensory integration issues. The student currently occupying this seat alternates between casually and gently swinging his feet back and forth to furiously rocking his legs back and forth with great speed, which is accompanied by an occasional loud, clanking sound. While I find this noise to be incredibly disruptive, the students and Ms. Nunes never so much as acknowledge its existence; they just continue with the learning task at hand. I also notice five unconventional student rocking chairs in the front of the classroom along with one green chair in the shape of a large cube.
The floors consist of a very traditional school surface, speckled, off-white linoleum squares with three large area rugs in varying places throughout the classroom. The classroom has interesting built-in bookcases that are being used to store student work in book boxes. There are also two large vertical shelving systems containing student supplies and animal research books from the library. It appears that Ms. Nunes has found
creative ways to utilize the classroom space while also making all supplies accessible to students. The students move freely about the room, gathering supplies. It is clear that the space has been designed with them in mind and that they have been trained on how to appropriately manage the space. When asked about this, Ms. Nunes solidifies my findings when she states very simply, “They also have access to all materials they could ever need. There’s nothing that is inaccessible to them.”
The walls are covered with student work and small inspirational messages. Three big words read “KIND, COURAGEOUS THINKERS” with the students’ names signed on the individual letters. Student artwork borders these pictures showing examples of
courage. Courage is… “Courage is standing up for someone." “Courage is perseverance." “Courage is perseverance and perseverance is try try, try till you get it right. Like Thomas Edison- it took him 100 times to invent the light bulb." The schedule is drawn up on a timeline on a whiteboard in the back. It shows the date and the schedule in hourly chunks of time.
Ms. Nunes enters the classroom and warmly welcomes me by coming over for a short conversation to familiarize me with what is currently taking place in the classroom. She explains that things are a bit unorthodox right now. They had a morning meeting that she wasn’t aware of until 8:00 a.m. this morning. She smiles through the annoyance and
states, “But sometimes that’s what happens when you work at a school focused on Creativity, right?!”

Image 28: Ms. Nunes, Classroom Layout 1

Image 29: Ms. Nunes, Classroom Layout 2
When I asked Ms. Nunes about her intentions for her students, she answered confidently that she strives to nurture their ability to think critically and to problem solve. She mentioned that this is particularly true when she is teaching math concepts.

I think one of my biggest values is just teaching them how to be problem solvers. When I teach math, I think my goal is for them to understand the concept. We just started division, and so for me, what I think is important for them to understand is that division is taking a big number and putting it into equal groups. As long as they can get that piece, I love giving them the freedom beyond that to explain however they want to. Same with any concept- like multiplication is a number of equal groups that are represented in one number, then great. Go with that. For me,
it’s understanding those core concepts and actually understanding what they’re
doing when they’re doing a problem. And beyond that, just that problem solving
and flexible thinking that I think they need.

Ms. Nunes shares that her intentions have been shaped by the learning
experiences she had as a child. She recalls stories in which she learned various
mathematical algorithms, but never fully understood the meaning behind the concept. In
fact, she states that it was not until she became a teacher and had to learn how to explain
it to students that she truly understood the meaning behind certain mathematical skills.
Ms. Nunes’ own learning gaps and rote skill memorization in her own personal
mathematical learning experiences motivated her to ensure her students would leave her
classroom understanding the concept behind every problem. She explains her reasoning
below.

I think all the time about how education was so different when I was growing up.
I think about what stuck with me and about what I understand from math back
then as a student. I honestly did not… so…the algorithm of borrowing and
carrying when you’re doing addition and subtraction- I didn’t understand it until I
was a teacher learning how to teach it, and then it hit me, ‘Oh, that one you carry
over is a ten!’ And so, I just think a lot about that and I think if my kids
understand they’re carrying a ten, they’re going to be able to expand that concept
on their own and say, “Now I’m carrying this one, and now over here it’s a
hundred, and a thousand, a million.” They’re going to understand what they’re
doing no matter where they are in the scale of that problem. And so, I just really
want them to understand the core of what they’re doing. Because our world is just so quickly changing for them, I think those skills of being able to solve problems and think flexibly and understand their resources and how to use them. I think that will go with them a lot further than the algorithm of carrying a ten. I think that’s my biggest goal for them.

Ms. Nunes shares one last intention present in her teaching. Knowing it is a skill that they will inevitably need later in life, she strives to teach students how to collaborate. Ms. Nunes states that she does this through intentional student grouping, a great deal of modeling, and by providing opportunities to practice the skill.

When asked if she feels as though her students are aware of her intentions, she states that she believes they are, particularly in math. Having looped with her class from last year, this is the second year that Ms. Nunes has taught this same group of students. She explains that because of this, they began the year understanding her expectations and her intentions, particularly in math. Ms. Nunes also shares that she spends a great deal of time reinforcing the importance of taking risks and making mistakes.

They know for me it’s a value, that I would much rather see their thinking and see that they can explain their thinking around a problem than them actually getting the right answer.
The Pedagogical Dimension

The teacher’s instructional role.

Ms. Nunes shares that her teacher training and internship program through the Denver Primary Prep Program has played a vital role in developing her pedagogical approach to teaching. The Denver Primary Teacher Prep Program enrolls approximately 50 teachers each year, providing them with a yearlong internship in which they work alongside mentor teachers. Ms. Nunes connected well with the philosophy of the Denver Primary Teacher Prep Program as it focused on the development of the whole child, particularly the emotional development of children.

My training at Denver Primary was very instrumental in developing my philosophy. Child development is a huge part of the philosophy at Denver Primary, and so I learned a lot about cognitive, emotional and moral development of kids and I think that’s huge. Understanding kids where they are and what they need is where I start.

Ms. Nunes also emphasizes that her philosophy is centered on her belief in being a facilitator of learning. She contends that assuming the role of facilitator encourages the students to grapple with concepts and arrive at understandings on their own.

I see myself as a facilitator and the more I can get kids to talk to each other and question each other, then more they learn rather than just having me stand up.
there and lecture. That’s a pretty high value—just getting them to talk to each other and interact and it’s based on Vygotsky’s Zone of Proximal Development, and also just through experience. In direct teaching I can only do so much—teach them a skill directly and give them a worksheet and then they have this very narrow view of what they’re doing.

Ms. Nunes shares that one way she encourages students to grapple with a problem in a group setting is by providing them with complicated problems that they have to find a solution to as a group. She emphasizes that they can arrive at the answer in any way, as long as they can verbalize their approach and reasoning to the class. She explains this teaching strategy and its effect below.

We do performance tasks once in awhile, so I’ll give them a more complicated problem and they’ll work on it with a partner. Together, they come up with a solution and have to explain their thinking through that process. I feel like their experience is so much more rich because they worked this out with a peer and they had to wrestle with this concept. I’ve just learned the less I give them upfront, the more they want to figure out what they’re doing and the more they want to wrestle with those concepts. I love the performance tasks, because I think if they’re wrestling with a concept, I think that’s going to stick with them and they’re going to feel so much more gratified when they figure out a solution than if I were just to tell them.

Ms. Nunes explores the importance of perceptivity and giving students an opportunity to work with a problem for an extended amount of time. She explains that
through PBEC, she has had an opportunity to explore this teaching approach from a researcher’s perspective. Because of this, she now strives to implement this strategy in her own classroom.

I talked about my work with PBEC, and something that keeps coming up in our work together is that research is showing that when students have time to focus on one problem over time, their understanding is so different and much stronger than if they have 30 problems in an hour. And this year, I’ve made that shift into projects for our learning instead of just doing exercises. I have seen their understanding improve so much. Because a kid will have a project and look at the same numbers for like two weeks and edit their thinking and their work around it. They’re interacting with it for so long every day and the numbers don’t change. Today, we’re finishing our division stories and they’ve been working on them for like three weeks. I just think it gives their thinking a place to land. Right now in division they might be really good at 24 and its divisors, but when they think about division again down the road, they’ll be able to say, okay- here’s how I understand it with 24 divided by two. That’s how I understand that. Oh, I can just take 14 and use the same concept and divide it and I still need equal groups. I just think it really grounds their thinking in the concept instead of just the rote, cranking through the numbers.

Lastly, Ms. Nunes also speaks to the importance of cultivating courage in her students. Besides feeling personally connected to its importance, on a larger scale, Destination Innovation has also highlighted being courageous as part of their school
model. In fact, the school motto, or overarching goal is to develop “Kind, Courageous
Thinkers.” Because of this, words like courage and risk-taking are part of the daily
dialogue and school culture. Ms. Nunes highlights this and its application to her
classroom.

And I talk about it a lot, like I make sure to acknowledge when I’m seeing
courage in math, what that looks like. And so I’ll tell kids, I’ll always ask first,
but I’ll say ‘Madison really struggled today and she had the courage to just start
over and Madison, how do you feel now?’ And she would just feel great about her
accomplishment. And I think because of the perfectionist qualities of some
students I have that are GT kids, if they don’t feel like they’re going to ace it,
they’re not really going to try. They need to know that they’re taking a risk by
trying something and they might fail the first time. And I think for them, that is
HUGE at this stage- learning how to deal with failure.

The Curricular Dimension

As noted earlier, Destination Innovation utilizes many interesting, school-wide
curricular approaches. Many of these curricular strategies will be discussed in this section
including, content specialization, SCAN, community partnerships, Curiosity Crews, and
site-specific creativity curriculum.

Content specialization allows for teachers to focus on specific content areas rather
than attempting to teach all content areas. Teachers pair with a co-teacher at the same
grade level and divide subjects accordingly. Generally one teacher will teach math, science and social studies while the other will teach reading, writing, and spelling. Ms. Nunes shares that she loves this approach as it gives her the ability to hone in on subject matter and it allows her to create meaningful projects that span the content areas in which she specializes. In order for this model to be successful, the co-teachers must have excellent communication as it requires a great deal of planning for a smooth implementation.

A central part of the school vision at Destination Innovation is the inclusion of community partnerships in each student’s learning experience. Students meet every Friday with the designated community partners for that academic year, with the hope of providing creative learning experiences outside of the classroom. Community partners have included the Denver Art Museum, the Denver Center for Theater Academy, and Young Americans Center for Financial Education.

Also unique to Destination Innovation is its inclusion of enrichment centers, or Curiosity Crews. Based on the work of Joe Renzulli, Curiosity Crews exist to give students an opportunity to pursue their passions through project-based experiences. Each Curiosity Crew is approximately six to eight weeks in duration and ends with a culminating presentation of learning. Topics are selected through a student inquiry process in which students identify areas of passion. This provides students with a unique opportunity to explore areas of passion and to potentially be exposed to new passions.

Mentioned briefly in an earlier section, the SCAN network (Short Cycle Assessment Network), is one way that Destination Innovation has used its innovation
status to better align the educational experience to fit their vision and school philosophy. Ms. Nunes describes this and the flexibility it has given her in planning and organizing her learning activities.

This year we opted into what’s called the SCAN network, but it’s part of Rocky Mountain Schools, and SCAN stands for Short Cycle Assessment Network and basically, instead of taking the district interim test, which are just paper and pencil fill in the bubble, we write our own assessments and analyze our own data and move from there. We still have to take the district’s last assessment at the end of the year, but until then because of opting out of their cycle of assessments, it really gave me the freedom to change my scope and sequence. Our principal decided to do it because last year the interim test was just awful. It was terribly written. We’re just a small school and staffing is really tight, and it was hard to even follow all of their protocols because we didn’t have an adult that could walk around and check out tests to everybody… just stuff like that. It was so hard for us. And really, we decided, that’s not what we’re about. We’re not about teaching to that assessment. That is, in our eyes, kind of worthless because it didn’t follow the curriculum that we think we should be teaching anyway. And so, this year, because I’m writing my own assessments and doing my own benchmark testing, I’ve planned out my year to flow with kind of more developmentally how I think math should go for these kids.

Generally speaking, teachers at Destination Innovation are asked to follow district selected, content-specific curriculum. While this is widely true, there are a few
exceptions that have been granted, mostly due to the innovation status that Destination
Innovation holds. One such exception is a creativity curriculum that was adopted by
Destination Innovation as part of their defining vision. Ms. Nunes expresses great
concern with the chosen creativity curriculum, stating that it is almost comical in its
seemingly rigid approach to understanding creativity.

I really don’t like it because it’s very narrow in its idea of creativity; it’s very
prescriptive and very formulaic. They have all these acronyms and stuff. It’s just
kind of funny. It’s all these worksheets. It’s like, here give them a worksheet to be
more creative. And all I can think is- you are missing the entire point! It’s so
funny. The way it’s been here is like, ‘Okay, we have this time for a half hour on
Friday, someone is going to come teach you how to be creative.’ And then
someone who has not been in my classroom at all comes in and is like ‘Here’s a
page of circles. Make them into something else.’ I feel like it’s the least creative
time of our week! It’s just shutting down all original thinking. It’s just so funny! I
feel like it’s for people who have no idea about creativity and they don’t know
where to start. And really, we’re here for a reason; we value creativity. I don’t
need someone to give me a worksheet.

Teachers are expected to follow the district adopted reading/writing, and math
curriculum; however, Ms. Nunes expresses concern with the chosen math curriculum and
its fit with the newly adopted Common Core standards. Because of this, she and her
colleagues have chosen to dramatically supplement the district curriculum in order to
achieve their desired results.
Our school and most of Rocky Mountain schools use Everyday Math and recently I learned that because we’re an innovation school, we’re allowed to opt with a different curriculum, but it has to be one that’s approved by the district already, or we could write our own curriculum that then has to be approved by the district, which that process just sounds like kind of a nightmare. So instead, us math teachers at our school got together and talked about it and what we would rather do is supplement what we have because that’s the easiest thing for us. So, what I do is, I use the curriculum as a very loose guide. I use the district’s scope and sequence and then I’ll look at the unit and look at those key points my students have to have… I look at the Common Core standards they have to have. And then from that, I’ll develop some goals for that unit and then if I really need the help figuring out how to teach that further, I’ll use my curriculum, but my kids really don’t use the workbooks because of how hard it is to modify it.

Ms. Nunes explains that she also supplements the math curriculum with XtraMath and TenMarks, both of which are free online resources for teachers. XtraMath is geared toward practicing math facts while TenMarks is a site she utilizes for homework assignments. She explains that TenMarks is aligned with the Common Core. By utilizing this site rather than following the recommended district curriculum, Ms. Nunes feels as though she is more amply preparing her students for what they will encounter on the PARCC test this fall. PARCC, a national standardized test aligned with the newly adopted Common Core standards, stands for Partnership for Assessment of Readiness for Careers and College.
When I asked Ms. Nunes if she would change anything about the curricular approach at Destination Innovation, she stated that she would not.

I think I wouldn’t just because I get so much freedom to do what I want to. No one checks in on me or cares where I am in the pacing. Hopefully that means they trust me and what I’m doing. I guess I wouldn’t change anything because whatever I want to change I do. I just feel like I am so lucky to have the freedom to do that.

On a similar note, Ms. Nunes expresses gratitude for the freedom within the curricular approach she has been given at Destination Innovation. She concludes our interview by stating,

I feel like since creative thinking has always been a part of my life, I feel like I can look at a curriculum and know that I have avenues around it. I feel like Destination Innovation has given me a freedom to not be bound by a curriculum. Instead, I can trust that I know the concepts that need to be covered and that I can get there by other avenues.

Closing Thoughts

Venom vs. Poison.

Ms. Nunes asks the students to gather at the front of the classroom in order to revisit the work they have completed on a science unit on animal lifecycles.

So, we have started to study some really cool animals. Many of these animals are very unique. We’ve started looking at the lifecycle of animals, and so now we
need to keep going with our research. You guys are doing the research, so now I think the questions need to come from you.

Ms. Nunes then goes over a list of guidelines for what the students will be doing. She writes these steps on the whiteboard and then reviews them once again. First the students are to meet with their partner to brainstorm. Next, students will write down the questions they brainstorm in their science notebooks. Finally, the students will bring their questions back to the whole group to share. While introducing the activity, Ms. Nunes pauses briefly to ask students to remind her of the brainstorming guidelines that are used at Destination Innovation.

“No judgment allowed.” says one student.

“We are fluent. We don’t just stop coming up with ideas.” says another student.

A substitute teacher then comes into the classroom to pull out the students that have been identified as Gifted and Talented. As half of the students pour out of the classroom, she informs Ms. Nunes that the students will be with her until lunch begins. The remaining students then break into partnerships and small groups throughout the classroom. Ms. Nunes moves from group to group to check in with them. She stops at one table where a student seems passionately distraught. I hear him arguing, “I can’t possibly come up with something I don’t know about because I don’t know about it. When you don’t know- that’s what that means! Ms. Nunes responds by eloquently and effectively stating:

Even experts on subjects that have been studying rattlesnakes for years still have questions. It is not possible to stop asking questions. There is always something to
be learned, even when you’re an expert. You need to come up with two questions and write them down in the next ten minutes. Get to work.

Ms. Nunes then asks the students to wrap up their conversations and join her in the front of the classroom where she has the document camera set up with her computer projected onto the screen. She asks students to find one question they want to ask the most. She explains that one student will read their question and then call on another student. Ms. Nunes works from a word document, ready to type the students’ questions as they pour in.

- Are all animals friendly to humans?
- What is their habitat?
- How big and fat do they get?
- What are their resources?
- How do they build their home?
- Are they nocturnal?
- How do they eat? What’s their prey?
- How many are there? Is this animal endangered?
- What are their predators?

Another student raises his hand and shares his question with confidence: “Is venom the same thing as poison?” He then shifts his body to survey the facial expressions and interest levels of the students around him. Ms. Nunes hesitates to put this question on the board, but the student insists. Another student, who has been debating this very
question with the student since the brainstorming assignment first began, asks to take a classroom poll.

“Let’s see a show of hands. Who thinks they are the same thing?” he states. Ms. Nunes laughs quietly, then interjects.

“Since we’re not scientists or experts on the topic, I don’t think that is the most scientific way to go about finding an answer to that question.”

“Yeah. You’re right. It’s actually the least scientific way to find the answer.” says another student.

Ms. Nunes subtly shakes her head and laughs. This simple, albeit comical, interaction between Ms. Nunes and her students illustrates the high levels of comfort that students feel. It is easy to see that the environment Ms. Nunes has created is safe and free from judgment. Her students feel able to take risks and be themselves. Arguably, this is a key first step in creating an environment in which creativity can be cultivated.

**Curiosity Crews.**

As stated earlier, students at Destination Innovation are given the opportunity to participate in Curiosity Crews, or enrichment clusters, every Friday afternoon. Below is a short vignette outlining a candid conversation I had with one student during classroom observations. It is meant to highlight the unique opportunity that Curiosity Crews present students with each week- to pursue passions and gain exposure to new interest.

As I quietly sit at a vacant student desk, another student pulls a chair up alongside me and engages me in conversation.
“Hi!” he says. “Are you going to be here everyday? Or, like most days?” he asks. As he politely interrogates me, he begins getting out his laptop to begin XtraMath.

“I’ll be here most days for the next two weeks.” I say with a smile.

He shows his math program to me and begins teaching me how to do it. He shows me his results and tells me he’s having trouble with certain addition facts. He then gives me a trial run on how to answer the questions, including answering three questions wrong just to show me what happens. I ask if he likes XtraMath.

“Umm. Not really. I mean, it’s not terrible, but it’s certainly not my favorite thing.” I smile and laugh subtly.

“What do you enjoy?” I ask.

“Well, what I really love is coding.” he says.

“Oh, yeah? Did you learn about coding at school?”

“Yeah. That’s where I first became interested. I did a Curiosity Crew on coding with the fourth grade teacher. I don’t remember her name right now, but the class was really interesting. Have you ever been to code.org?”

“No.” I respond.

“I can show it to you right now.” he responds.

Curious, I oblige and type in code.org in my search bar.

“It’s a place you can go to learn how to do computer programing. Basically, you have to create an account first, and then you can access any of their coding games. It’s really cool. I also really like Code Academy, but you have to know how to code before going to that site. Scratch is also cool.”
“Is computer coding and programming something you want to do as a career when you’re older? I ask.

Well, maybe. I’m really interested in it, but I also just discovered it like four months ago when the Curiosity Crew began. What I am also fascinated by is weather. I went to this place recently that’s up in the mountains. It’s called NCAR, which stands for National Center for Atmospheric Research. It was awesome. They have so much there to learn about. My mom took me there. She’s from Cuba.

He quickly loses focus and digresses into a conversation about Cuba and the war that she left behind when she was three, but not before I am left feeling inspired about the exposure he was given to a topic that has now become a passion of his.

Summary

Ms. Nunes, a new teacher with an old soul, routinely greeted me with a compassionate smile, like that of a long-time friend. Her hurried pace and upbeat tone filled the classroom with a sense of excitement about the learning process. During interviews, her dialect flowed like a natural conversation as she reflected on her personal learning experiences and the struggles she has faced in public education. Genuinely reflective in conversation, Ms. Nunes regularly demonstrated her deep-seeded interest in the process of establishing holistic, engaging learning environments.
Response to Description from Ms. Nunes

Wow, you've been busy!!

I couldn't help but smile as I read about your take on my classroom. I think you completely nailed it. I completely forgot about the great poison vs. venom debate! I'm glad you were exposed to the passion that flows through these little ones. Thank you so much for the work you are doing. I am honored to be a part of such a study; it is so affirming to have the opportunity to highlight the importance of creativity as we cultivate divergent thinkers in our 21st century classrooms. I would love to read your whole dissertation when you are finished- I want to hear about the other teachers you met!

Good luck as you wrap this up, I am amazed at the work you have done!

(Personal Communication, April 19, 2015)
The Learning Place

The Learning Place is the only public arts integration magnet school located in the Apple Valley school district near Denver. The Learning Place, in its seventh year of operation, is currently serving 297 students, grades Kindergarten through fifth with a school-wide mission to infuse the arts into standard-based learning in the core subjects. Students at The Learning School are enrolled through a competitive lottery system. The Learning School’s student population is comprised of 67.3% White/Caucasian students, 20.9% Hispanic, 3% African American descent, 3% Asian, and 2.36% Native American. Approximately 38.7% of students at The Learning Place qualify for the free and reduced lunch program.

With its unique emphasis on the inclusion of arts into public education, The Learning School has attracted an equally unique population of educators, with 70% holding advanced degrees and an average of seven years teaching experience. Perhaps more interesting though, are the diverse skills and expertise the educators bring to the classroom. Many educators have strong backgrounds in dance, performing arts, visual arts and music. Aside for the classroom teachers who integrate the arts on a daily basis, The Learning Place employs full-time teachers for music, visual arts, performing arts, ceramics, and strings. As part of the arts-integration model, students receive one hour of instruction each day in one of the five forms of artistic expression listed.

After being greeted with a warm smile from the front office receptionist, I grab hold of a repurposed paintbrush pen and sign in sheet. As I turn to head toward Mrs.
Anne’s classroom, I am immediately struck by the abundant color on the walls— from beautiful paintings illustrating the four seasons, to handmade clay beads and paper cubes covered in beautiful crafted symmetrical artwork. The hallway walls showcase of the authentic learning that is taking place inside the classroom walls.
Image 31: The Learning Place, Hallway 1

Image 32: The Learning Place, Hallway 2
Mrs. Anne

Mrs. Anne is in her sixth year of teaching, all of which have been at The Learning Place. She entered the teaching profession later in life, after earning a Masters degree and teaching certificate at the University of Denver. Prior to returning to school, Mrs. Anne taught ballet for 30 years, managed a floral shop, and worked at a local grocery store. Mrs. Anne, who is highly respected at her school site, taught 3rd grade for three years and is now in her third year of teaching second grade. She also wears the hat of Curriculum Coordinator for her school site. She carries herself with an incredibly calm, poised demeanor as she moves through the classroom with very apparent purposefulness. Her tone of voice is soft, yet filled with conviction. At first glance, Mrs. Anne appeared as a complex dichotomy or an intersection of attributes that are seldom paired together: serious, creative, organized, imaginative, disciplined, flexible, reflective, and focused.
The root of inspiration: Where heartache and serendipity collide.

Like so many creative, resilient individuals, Mrs. Anne’s story begins at the bottom, with a heavy load of heartache after the deaths of eight beloved family members. I had taught ballet for about 30 years, and between 2003 and 2005 I sort of had a family crisis. Eight members of my family died. Both of my husband’s parents died, my dad’s brother died, my brother died, my dad died. All unrelated events. We would just recover from grieving, funeral and learn that the next person had cancer or something happened. So, it was sort of difficult period of time and right at the end of that my husband lost his job and so we were in this really weird transition where he was looking for a new career because he couldn’t be retrained in what he was doing; it didn’t exist anymore and I was feeling a little lost, I had been teaching dance, but to help support income I had taken on a job at a flower shop. And I really realized after my dad died, which was the last of the series of unfortunate events that I just didn’t really have a real purpose. Teaching dance was great. My youngest daughter was going to start high school. One daughter was married, one daughter was in college and I was feeling really nebulous and I was just randomly reading a community newspaper.

Reading the community paper that morning changed Mrs. Anne’s career path indefinitely. It was there that she first saw an advertisement soliciting teachers for a highly praised teacher residency program in the Denver metro area. Although she applied and did not get accepted, an encouraging professor convinced her that the general teacher education program was a better match for her. Convinced that this was the right career
path for her, having always been a “teacher” at heart, Mrs. Anne applied and was accepted for the cohort beginning in the fall of 2007. Unfortunately, she could not manage the financial burden for the program, so she chose to defer for a year. The following fall she was graced with a healthy dose of serendipity.

And then I deferred for a year because I couldn’t figure out the finances for it and then I in the fall of 2008, I started and just as a random thing, which I feel like was a miraculous provision… A woman who had worked in Denver Public Schools her entire life had passed away and she had left in her will a $10,000 gift to a female person who was returning to school to become a teacher and dedicated themselves to teaching and it landed on somebody’s desk on the same day I had called them and said ‘I still don’t know if I can work out the money. I don’t know if I am going to go back to do this or if I will just be a florist.’ The lady called me back and she said you know, there’s this check on my desk and it just seems like it’s for you. And it made all the difference. It enabled me to get through the teacher education program… it paid for half of it, so it was amazing. So I did that, and it was the most crazy, insane thing I’ve ever done.

When Mrs. Anne recalls her background, she readily connects her life experiences to the art of teaching and therefore describes the act of becoming an educator as a logical progression. Outside of the sequential teaching career path, Mrs. Anne speaks with enthusiasm about the root of her teaching inspiration.

I’ve been asked often why did I go back to become a teacher and…. My fourth grade teacher is why. And there’s always that person. She was this amazing
person. Everything that we did was so exciting! I remember that she had a puppet theater. And I was happy. I just remember being happy. And I remember I loved her. And I don’t remember anything in particular that she did to make learning so fun, but it was really fun.

Forging a new path.

A successful arts integration school seeks to weave the arts and forms of artistic expression into the standard curriculum being offered by the rest of the district in hopes of creating a richer, more lasting educational experience for all students. In a current educational climate wrought with fear of high stakes testing and measurable outcomes, the arts integration model has often been the victim of great skepticism and judgment. However, on the contrary, it has also been proven to be a highly effective as it can increase student engagement, improve social behaviors, provide students with multiple points of curricular connection, and provide an improved school climate (Arts Every Day, n.d.).

The Learning Place is the only arts-integration school in the Apple Valley school district and is therefore left with the heavy task of blazing an unknown and often misunderstood trail. Mrs. Anne says she is not alone when she expresses her frustrations at the lack of understanding of what arts-integration means from administrators, fellow teachers, and parents in other neighborhood schools in the district. She discusses such frustrations as having limited curricular resources as teachers at The Learning Place are required to follow all curriculum adopted by the district, regardless of its effectiveness in an arts integrated environment. This often means that teachers at The Learning Place are
left with additional curriculum to “cover” without added instructional time. Mrs. Anne also notes that the teachers and administrators at The Learning Place have become more skilled at educating outsiders about the work being done inside their building. For example, all student work on display is now accompanied by a list of standards that are being met and its connection to the curricular context. This aids clarification, which leaves less room for misunderstanding from outsiders with little arts integration knowledge. Mrs. Anne stresses the importance of this through her candid account below:

We didn’t really realize how important it is to educate people about what was on our walls and why. We should have the standard posted, and the project posted, and the goals posted, which is a lot of work. So, that became a matter of practice in this building to save us from being told we couldn’t do arts integration because you just have crafts, which is like an evil word in this building. I can tell you one time in the last six years that I have done a craft and the rest of the time it’s really thought out, educational, artful responses to learning and there’s nothing crafty about it. It’s not just to make something for the skill of making something or making something because it’s just fun. You know, there’s a whole training for arts integration of you know- authentic materials, authentic purpose, children have buy in, it meets educational goals, it meets objectives, it meets standards and a lot of choices are built in for the kids to have choices and that’s very scary for people with administrative background to see people giving kids free reign over their learning.
While feeling constrained and bogged down by district curriculum requirements, Mrs. Anne also describes joy in the curricular freedom she does have. She candidly summarizes the benefits and challenges of forging a new trail in her educational setting:

I think that I have an incredible amount of curricular freedom that teachers in other schools in this district don’t have. When I go to meetings and I talk with other teachers about ‘What are you doing for this?’ or ‘What are you doing for that?’ Some sort of conversation always comes up and I almost feel guilty sharing some of the fun ways we get to present and show learning that are different than most neighborhood schools, especially Title One schools and struggling schools. The teachers express that they feel like they’re under somebody’s thumb, that they really have a tight reign on what they can and can’t to and all the expectations. So, with that perspective, I feel very grateful to be at this school; however, forging a new trail in a district that’s never had an arts magnet school and they don’t know what arts integration is and they don’t know what it looks like and they don’t know how kids learn and they don’t understand anything that we’re doing has been really, really hard.

On creativity.

Mrs. Anne has a unique background in the arts, beginning at age eight when she began her first ballet lessons. By the age of fourteen she had become a Company Member of the Colorado Ballet. Mrs. Anne first enrolled in college at the University of Northern Colorado, but upon the realization that she wanted to pursue a dance degree, she
promptly transferred to Colorado State University on a dance scholarship. After getting married and starting a family, Mrs. Anne taught ballet for 30 years. With her equally challenging and rewarding artistic background and her appreciation for artistic expression, Mrs. Anne approaches the concept of creativity with unique structure and order.

... giving them access to basic skills so that they can use that to build something that shows me that they’re learning. That’s creativity. And it takes a lot of thinking it through on my part so that they have enough structure to be successful, but enough lack of structure to give them choices.

Mrs. Anne, having enrolled in two Aesthetic Education Institute of Colorado (AEIC) summer courses, is well rehearsed in CRISPA and sees the importance of allowing students the opportunity to express their understanding in a multitude of ways. She created an interactive CRISPA poster that she and the students use to breakdown their learning experiences after each unit of study. In her eyes, learning, artistic expression, and being creative should flow somewhat seamlessly together. She argues that learning should not be refined to linear modes of representation of knowledge, but rather that students should have the opportunity to express themselves in a variety of ways. She states, “So, part of creativity is giving them that opportunity to show me that they are learning in a context that might not be a worksheet.”

Mrs. Anne, a lifetime student of the creative process, talked openly about finding time to adequately nurture her creative spirit and keep a harmonious balance between her personal life and professional life. For thirty years, Mrs. Anne was fortunate enough to
spend her days submersed in the creative process, as teaching dance was a powerful creative outlet for her. Once she became a classroom teacher and stopped teaching dance, it didn’t take long for her to realize she needed to continuously devote time to creative endeavors in order to maintain her health and sanity.

You know, here’s what I’m learning now- I realized this year, in particular, that I’m not teaching dance for the first time ever, that that was my creative outlet for all of my frustrations and all of the things that were wrong with this job… that I could cure all of them when I went to teach dance classes twice a week. I had to go purposely find something to be doing that was creative and I realized about two weeks into the school year that I was going to drown in my sorrows if I didn’t have an outlet to do something creative with kids that had nothing to do with teaching school.

Mrs. Anne promptly began working with kids at an art studio on Saturday afternoons to help fill the artistic outlet she so desperately desired. She also spoke passionately about gardening, stating that she spends as much time on the weekends as she possibly can in her garden, moving from one shady spot to the next. Lastly, Mrs. Anne shared her newest hobby, ZenTangles, which she says are five minute doodles that allow her brain to think creatively and produce a rather interesting product. After even a short conversation with Mrs. Anne, one can see that being creative is part of the fabric of who she is; without it, a void is left and her spirit dampens.
Challenges and rewards of teaching in today’s world.

It is difficult for Mrs. Anne to talk about the challenges and rewards of her chosen career. It is so difficult in fact, that tears often find their way to the surface as she engages in conversation about the challenges of forging a new path in a district that does not understand arts integration, and the tears are still present while she speaks about the fulfillment the kids success provides. She notes that the challenges and the rewards often go hand in hand and therefore they can be difficult to separate. When she talks about the challenges, a look of utter exhaustion and defeat take over her entire body. Her shoulders lower slightly, she takes a long deep breath, looks around the classroom, shakes her head ever so subtly and with a slight quiver in her voice, she states:

I feel like I hold two things one is the children in front of me that I feel dedicated and responsible to guide them in what they’re supposed to be doing and the other thing is this huge, heavy weight of expectations from the state, from laws, from rules, from how am I going to be evaluated and is what we’re doing in our classroom even have anything to do with this thing over here that we’re being evaluated on. I mean it’s so skewed and it’s so discouraging because they create all these systems to judge and evaluate you that are disconnected from what you’re really doing and how you’re really doing it. So, that is how teaching today is very different than what I thought it was going to be, and what I really, really struggle with, and if I weren’t at this school in specific, I wouldn’t work in this district.
Struggling, discouraging, skewed, disconnected, challenging, frustrating. These are all words that Mrs. Anne uses freely yet purposefully to describe the current state of educating today’s youth in a public school district. She also notes that she feels helpless, as though there is nothing she can do to right the ship and make her teaching environment less conflicting and more harmonious with her beliefs about the way the practice of teaching should be approached. She references feeling like “a tiny pea in a giant system” whose voice will never be heard. Feeling defeated and exhausted, she readily admits that while she has only been teaching for six years, she has contemplated leaving the career every year as she continuously struggles with finding a healthy balance between her personal life and professional life. While she wants to believe things will get better, she also wrestles with the reality of feeling too consumed by her job to keep a balance, to be there emotionally for her family, and to maintain her mental health.

When asked about any additional challenges of being a teacher in today’s world, Mrs. Anne takes a moment to reflect quite candidly about an entirely different kind of struggle.

Being a teacher today means that I have to teach children some really basic things that I think parents should be teaching their children like how to tie your shoes, how to get along with each other, how to take turns, how to have manners. It’s astounding to me the things that I thought parents were teaching their children that they’re not and they’re just leaving it to the wind, I guess for their kids to pick it up somehow.
While the struggles currently seem to take center stage in Mrs. Anne’s reflections, the rewards are bountiful as well. When she speaks of such rewards, the stories that she shares are always connected to students’ successes. She warmly recalls a recent visit from one of her first students who she worried slightly about that has moved on to a bigger middle school that is very culturally different from The Learning Place. With a warm smile she says that he has become a “star of his school.” She continues,

And that gives me so much joy to know that whatever we did for him here made all the difference for him to feel like he is successful and thriving in a different environment. In a totally different culture… like school culture. So, for all my sad tears about how frustrated I am about teaching, there are things that are happening that are really important.

It is evident that the rewards exist for Mrs. Anne; however, it seems they are currently residing in a much larger shadow of challenges that continues to follow her path, regardless of the weather.

**Physical Environment**

The learning space.

I enter the classroom to find the students sitting attentively in their usual spots on the clean yet well worn blue rug in the front of the classroom. As I walk quietly across the classroom to my usual spot in the library nook, the students are engaged in conversation about justice and fairness. A few students seem to notice me walk in the
door, but they are much too absorbed in the whole class discussion for my arrival to become even the slightest of a distraction. A few subtle smiles are exchanged and the students are once again engrossed in dialogue with Mrs. Anne. Mrs. Anne sits on a stool in front of an easel holding up a picture book, *Matthew and Tilly*.

My view of the classroom is unobstructed yet intentionally removed from the heart of the activity. It seems the students are used to having visitors and Mrs. Anne is well rehearsed in limiting distractions and staying on task. As I pull the small, plastic, blue chair out from one of the computer desks, Mrs. Anne begins handing the students post-it notes after they share with her what they think justice is. The students, eager to share their answers with the entire class, do nearly everything in their power to keep themselves somewhat rooted to the ground. With their arms extended to the sky, pleading facial expressions, and a few, albeit rather restrained, “Ohh,” “Ahh,” and “I know!” chants, they all take a moment to share their new understanding of this somewhat complicated topic.

One by one, the students begin to return to their seats. They work quickly, writing a definition and drawing a picture to explain their thinking. Some sit while others cannot be bothered to waste time pulling out their chairs and instead they choose to simply stand behind their desks and wiggle about until they have accurately portrayed their thoughts on the yellow three inch square. After completing their definition and drawing, students walk to the front of the room and place their post-it on the chart they have made together. They quickly find a spot back on the rug in the front of the classroom. While they are
engulfed with the activity, I take a moment to reflect on the space that invigorates them each day.

As I make my way around the classroom, a number line follows me, subtly reminding me of even and odd numbers, counting by fives, tens and so on. I weave in and out of the six table groups in clusters around the center of the room. The groups, created by placing anywhere from three to five single desks together, are each intentionally unique in layout. Some students face the front of the classroom, while others face a classmate and sit perpendicular to the front of the room. The desks are the traditional vinyl wood surface, four adjustable metal legs, and one large cubbyhole in the front. The chairs, also of traditional elementary design, consist of navy blue plastic seats resting on four metal legs. The chairs and desks slide about the room with ease as they rest on a layer of thin, taupe brown carpet. On the desks rest containers filled with supplies – pencils, erasers, pens, scissors, sharpies, etc.

The front of the classroom is centered on a large whiteboard and projector screen. On the whiteboard is the daily schedule, the morning “opener” activity, a CRISPA poster. To the right of the whiteboard is a monthly calendar, while the easel sits to the right of the whiteboard, near Mrs. Anne’s desk. The math manipulatives and the daily job chart find their home below the whiteboard. An art table sits in the front corner of the classroom, with art materials neatly organized in the shelves below. A drying rack stands tall, near the table while the art supplies are organized on the shelves closest to the drying rack. A small water fountain and sink line the back wall.
Mrs. Anne’s desk is positioned in the corner of the room. A document camera sits on one corner of the desk, a computer monitor on the other. Beautiful dried leaves, flowers, plants, and ornamental sticks line the perimeter of her desk while filing cabinets and a decorative desk lamp line the back wall of the space. There are pictures of her now grown children next to the computer monitor and a few pieces of seemingly sentimental artwork hanging on the back wall. Small stacks of student work and miscellaneous folders sit close to the keyboard.

Table group number signs hang gracefully from the ceiling and are adorned with pinecones, fall leaves, and snowflake art. On the back wall is the class mission statement, which reads “Lessons from the Geese: Everything goes better when we work as a team. We all stick together. No one is left behind. Leaders are kind and helpful. We take turns leading. We cheer each other on.” A handmade quilt hangs from a large stick between the storage closet and the bathroom door. On it, are hand-stitched pictures of geese.

There is a sense of peacefulness with the presence of nature throughout the classroom; green plants can be found on most shelves, along with rocks, stones, and sticks. Earth-toned fabric lines the bulletin boards in the classroom.
Image 34: Mrs. Anne, Classroom Layout 1

Image 35: Mrs. Anne, Classroom Layout 2

Image 36: Mrs. Anne, Classroom Layout 3
When talking with Mrs. Anne about the physical environment of her classroom, it is evident that this is something to which she has given great attention and reflection. She speaks of organization, optimal traffic flow, the purposefulness of what is hanging on the walls, student accessibility to materials, initial student and adult perspectives upon entering the classroom, and color and beauty, just to name a few. Her reflections are powerful, her decisions purposeful.
It may look a little cluttered and busy in here, but I’m really particular. Really particular. I’m really particular about what happens when you walk in the door. How do you get from here to there? What does it look like when you’re standing in the doorway? What does it look like when you’re facing the easel? What are the kids seeing? What does it look like when you’re standing at the back door as an adult looking in? What are the adults seeing?

A great deal of thought has been poured into the room arrangement, particularly the table groups. Mrs. Anne describes a numbering system she has in place for each of the six table groups in the classroom. Based on Mrs. Anne’s formal and informal assessments, each student has been assigned a number, one through four. While the students are aware of their numbers, they are unaware of the meaning of those numbers. The #1 students are the students who are struggling academically or behaviorally. The #2 students are the kids that are performing well above grade level, academically and potentially socially as well. The #3 students, while not necessarily high or low, are great team leaders, and the #4 students are the students that Mrs. Anne has a hard time categorizing into any of the previously mentioned groups. This thoughtful grouping system allows Mrs. Anne to have a balanced representation of learners at each table group, and it also allows her to quickly form smaller, successful partnerships depending upon the assignment or task being presented. She can frequently be heard requesting students to find a partner in the following way: “Can a #1 please find a #3 student to work with?” This is a simple, yet powerful example of the thoughtfulness that takes place inside Mrs. Anne’s four classroom walls.
Mrs. Anne spared no reflection when choosing what would be put on display for students and visitors to experience. While it is apparent that she spends ample time reflecting on the general appearance and aesthetics of the classroom, greater time is devoted to the usefulness and “teachability” of the classroom walls. However, she takes it one step further and provides an opportunity for the students to use the walls to teach others about what they have learned. She aims to have the students not only be consumers of the information on the walls and around the classroom, but she also strives to have the kids be experts of the information so they can impart their wisdom on classroom visitors whenever the opportunity may arise.

I want to make sure that the walls reflect what the students are doing and not what I am telling them. I want to make sure that when someone is coming in here that they can ask kids ‘What’s this on the wall?’ and the kids could be experts. There’s a lot of stuff in here that doesn’t look so neat and organized like the fairy tale thing over there with the messy sticky notes all over it because that’s their work; it’s not mine. And it’s what second graders do.

The Intentional Dimension

The bigger picture.

During classroom observations and interviews, I sought to gather rich data about teacher intentions; that is, what are the teacher’s intentions for her students? What hopes and aspirations do the teachers hold for their students this year and years from now?

When asked about her intentions for her students, Mrs. Anne pauses briefly, and with a
look of deep reflection says, “Now, that’s a great question and it’s one that I’ve thought about a lot over the years.” She carefully and thoughtfully approaches the topic of her intentions, as they appear to mean a great deal to her. As she reflects, she speaks of fostering independent thinking, cultivating excitement for the process of learning, and building resilience by providing safe, organized risk taking opportunities for her students.

Over the long run in their little lives, I hope that I’m giving them a foundation to know how to think for themselves because they need to be able to judge between good and bad choices in their lives, they need to be able to judge what is true and what is not true, is that reliable information or not reliable information, is that hearsay, should I go along with the crowd because that’s what everyone is doing, or should I think for myself. I also, very intentionally put them in uncomfortable situations so that they have to take risks and understand that taking a risk and making a mistake is part of learning. That it is the best way to grow as a learner and that our brains grow and change. The words I use with them are: ‘Oh, my goodness. You made a mistake. I bet your brain is growing and changing now so that the next time you are going to feel totally different about this.’ And really present the idea of making mistakes as a positive thing because I really believe that they don’t get a lot of that in our culture. And so, I try to give them the most positive feedback when they’ve failed because you don’t ever make progress unless you fail at something and you have to try again. And I hope that they leave here being able to love learning. That’s the other side. That’s the most important to me- I want them to be able to love learning.
Mrs. Anne then shares that she does not necessarily state her intentions or make them explicitly known, but that she tries her best to embody them by sharing stories and by being a living example of an independent, risk-taking teacher who loves learning. And after numerous classroom observations I would wholeheartedly argue that Mrs. Anne’s perspective is very accurate; although they are not always explicitly stated, Mrs. Anne’s intentions permeate throughout her classroom. To illustrate this point, below, I share an interaction I witnessed between Mrs. Anne and one of her students. The words are simple, but the affirmation meant a great deal to the child who had been working tirelessly at her desk.

“Mrs. Anne, I finished it!” Kate exclaims, feeling overjoyed with herself.

“Great news! What happens, Kate, when you work hard?” Mrs. Anne inquires.

“I get more work done!” Kate says ecstatically.

“And doesn’t it feel great?” says Mrs. Anne with enthusiasm.

Kate simply smiles at Mrs. Anne, shakes her head in disbelief, and softly proclaims, “So great.”

Through this simple interaction, Mrs. Anne reinforces the power of resiliency and the enjoyment that can come from it. The student had been working unremittingly at her desk, trying to correctly complete her assignment while everyone else had already finished. By allowing her the opportunity to complete this difficult task on her own, Mrs. Anne also gave Kate the chance to feel true success that comes from hard work.

On a separate occasion, I also observed Mrs. Anne explicitly address her expectations with the class. The class was preparing to begin a new activity, which
involved acting out the plot of the picture book they had been reading by capturing meaningful moments in “freezes.” The students were delighted to begin; giggles and joyful laughter were already slowly erupting throughout the room. At which point Mrs. Anne interjected:

“Do we already know what Mrs. Anne expects of us as far as taking our work seriously?” Mrs. Anne asks, directing her question to the entire class.

“Yes.” respond a handful of students in unison.

“Isn’t that a weird thing that when we take something more seriously, it’s more fun?” Mrs. Anne rhetorically inquires. She then looks directly to a student and asks, “What did you learn yesterday about taking something seriously, Lexey?”

“I discovered it’s more fun to learn than it is to goof around.” the student responds, seemingly surprised by her findings.

“Isn’t that interesting? You’d think that goofing around might be more fun, right? But what’s actually more fun?” Mrs. Anne asks with a look of disbelief across her face.

“It’s learning!” responds Lexey as she throws her arms into the air.

Mrs. Anne’s intentions quietly surface in numerous places around the classroom. They’re subtly stated in her dialogue with students, in the artwork and student work around the classroom, and in her presence and attitude displayed toward the monumental task of learning. In summary, Mrs. Anne states:

And so, what is it that I want them to leave with? I want them to be able to say:

‘You know, it’s okay to stand up for myself,’ and I want them to be able to be
excited about learning. Super on fire, excited about learning. Engaged in the
learning and being the doers of their learning and not just sitting like little lumps.

The Pedagogical Dimension

The teacher’s instructional role.

Mrs. Anne expresses clashing perspectives and slight tension between her ideal role as a teacher and the reality of how she much teach, both through her dialogue and in her actions. It was apparent to me that how she would prefer to approach the task of teaching and the reality of how she must approach it due to reasons of accountability, are not entirely in sync. Most of the conflicting perspectives are extremely realistic in nature and represent shifting ideologies after practical experience has been gained. For example, note Mrs. Anne’s changing perspective on the role of a teacher as a facilitator versus being a dispenser of information.

I came into teaching feeling very strongly that I wanted to be more of a facilitator and less of a dispenser, but I have really grown to understand that there is a time for dispensing and a time for facilitating. You can’t facilitate something that they have no idea how to do.

It seems that her shifting beliefs are truly the result of practical experience. Mrs. Anne also speaks on the topic of practicality when she addresses her role of teaching and the reality of accountability in today’s classrooms. The accountability she is confronted with inevitably molds her approach to teaching.
I’m accountable for them to be able to show that they’ve learned certain things, that they met certain standards, so again, it can’t be a free for all and it can’t be a dictatorship. There has to be a balance. So, I hope what I do and what I really purposely aim to do is to present information in a fun, engaging way. Sometimes I present information or we dig it out together. We read something together and then they get opportunities to practice using that information in different forms.

Mrs. Anne also highlights how important it is to her that the arts be infused into the curriculum such as they are at The Learning Place when she states: “And I don’t think, no matter where I teach, I could do it without arts-integration kinds of things. I just don’t think I could teach without it. It’s a really important tool.”

She views arts-integration as an instructional teaching tool that allows her to reach learners in a variety of ways and allows for her students to demonstrate their understanding in a variety of ways. Mrs. Anne also notes that for her, arts-integration makes the curriculum more compelling and it keeps the planning more interesting.

As mentioned previously, Mrs. Anne received her teacher training at the University of Denver while earning a masters degree. Through the university, Mrs. Anne also learned about a summer program for educators offered through Think 360 Arts and the Aesthetic Education Institute of Colorado (AEIC). Over the past six years, Mrs. Anne has taken part in two of the AEIC summer training programs, which is where she first learned of Dr. Bruce Uhrmacher and Dr. Christy Moroye’s Six Dimensions of Aesthetic Learning, also referred to as CRISPA, which was highlighted in Chapter three of this study and mentioned briefly earlier in this chapter. Mrs. Anne immediately connected
with the six dimensions of aesthetic learning and she now uses them regularly in her
teaching. A small poster, located on the whiteboard in the front of the room, documents
the six dimensions in a user-friendly, color-coded format, which is available for students
to reference. She uses CRISPA to continuously inform her teaching and to help the
students understand the process of learning.

Image 39: Mrs. Anne, CRISPA Poster

The Curricular Dimension

Most would argue that it is the approach to learning at The Learning Place that
sets the school apart from other neighborhood schools in their district. As mentioned
previously, the students at The Learning Place have greater access to engage in the arts
through daily instructional time in visual arts, performing arts, music, and ceramics.
Aside from the daily lessons in arts, teachers also spend their time embedding the arts
into all core subjects taught throughout the school day.
Interestingly, even though The Learning Place is an arts-integration school with a clear and consistent mission to engage students in the arts, the adopted curriculum remains similar, if not identical, to the rest of the neighborhood schools in the district. Therefore, the teachers are expected to use the adopted district curriculum and in addition, also infuse the arts into each lesson. For Mrs. Anne, this is an issue coupled with incredible difficulty and frustration. She highlights this point when she states: “We are expected to follow with fidelity, the things that the district uses, no exceptions. So, anything we do with arts-integration is above and beyond and it’s really hard. It is extremely hard.”

Mrs. Anne shares a recent conversation that she had with her administrator in which her administrator informed her that she had been given permission to allow the teachers at The Learning Place to use the district math curriculum for 75% of their math instruction, which consequently left them with 25% for other integrated, hands-on projects. Although it may sound a bit dismal, this was a big improvement for a school that has not been afforded much autonomy from the district in the past. Upon asking for clarification if this had just happened, Mrs. Anne responded with a subtle smirk:

Yes. But that doesn’t mean that I’ve followed the rules because I don’t. And that is why I probably couldn’t work at a district school because I don’t follow the rules. I won’t. If my kids need something like this to show me that they understand it and they will have this for a couple of years hanging somewhere in their bedroom because they made it and it’s beautiful and it gave them a way to
show their learning that’s different than what they’ve ever done before, then it’s authentic. It’s certainly not a craft.

When asked about her ideal teaching environment and what the curriculum might look like, Mrs. Anne pauses only for a second and the answers with confidence:

So, my ideal curriculum would be- give me resources that are relevant and research based, best practice that I can use to meet the standards. Show me what outcomes you want to have and let me teach. I don’t know that that’s how every teacher would function best, but that’s what I would like. It would make me very happy. And it would help me to be creative with my planning. I wouldn’t get in a rut.

Mrs. Anne also vividly recalls one of the handfuls of times she found herself in tears in her professor’s office. She had approached him, frustrated with the lack of flexibility in the curriculum, struggling to find a manageable way to consistently infuse the arts yet still meet all the district requirements. He asked her if what she wanted was an organized arts-integrated curriculum for her school, to which she responded: “No. I guess what we want is the freedom to be professionals and to make decisions and to have collaborations with local artists and those kinds of things.”

Although Mrs. Anne’s curricular struggles seem great, the learning environment I observed was bustling with energy, excitement, and joy. During my observations, the students were in transition between two integrated units of study, a literacy-rich social studies unit titled “Conflict and Resolution” and a science unit titled “Processes that Shape the Earth.” The first day of observations I entered the classroom to find the
students actively engaged in their science unit, meeting the specific standard, “Earth events can occur quickly or slowly.” Identifying their current unit of study was effortless as it was clearly evident throughout the classroom as there were numerous posters, interactive student charts, and other student work highlighting the arts-integrated unit. As I looked around, I noticed students working in small groups throughout the space. One group was working at the art table with Mrs. Anne, building models of volcanoes with plaster while another group sat at their desks drawing images of a volcano and labeling the different parts accordingly. Another group was working quietly at their desks, writing a “how to” on building a volcano replica in their writing journals. The students were using different resources from all around the room. Hanging on the whiteboard in the front of the room was a drawing of the earth and its many layers. The same drawing was also on display on a door painted with chalkboard paint in the back of the room. On the easel was a labeled drawing of a volcano as well as a student created chart that noted keywords and different ways in which the earth can change quickly. Above the art table where Mrs. Anne was building volcano models with students was an interactive post-it chart that showed changes over time. Lastly, to the right of the chart was a unit-centered word wall.

After about forty minutes had passed, the students enjoyed some fresh air during a recess break. Once they returned to the classroom, they quickly got back to work doing a whole class Close reading activity on volcanoes. The students sat at their desks with the reading handout at their fingertips while Mrs. Anne stood behind the document camera displaying the same document. Strategies specific to the Close reading approach were
outlined on the whiteboard and again at the top of the handout they were reading. The students all eagerly followed along, intrigued to learn more about “The Volcano That Keeps Erupting.” The students’ growing knowledge about volcanoes seems to help them with new vocabulary words presented in the reading, while also keeping them interested and engaged.

Although Mrs. Anne expresses many curricular struggles she is presented with daily, she also pauses to see the beauty in what freedom she does have and in the stimulating environment she works so hard to create. In the end, Mrs. Anne summarizes by stating, “But I am confident beyond all things that these kids are getting a rich, engaging education that develops critical thinking and helps them to not lose creativity." I can definitely support this claim; the students appear to be thriving.
Image 40: Mrs. Anne, Arts-Integration 1

Image 41: Mrs. Anne, Arts-Integration 2
Image 42: Mrs. Anne, Arts-Integration 3

Image 43: Mrs. Anne, Arts-Integration 4

Image 44: Mrs. Anne, Arts-Integration 5
Closing Thoughts

Trust in me.

Mrs. Anne expresses a strong desire to be valued as a capable, competent, and effective educator who deserves to be trusted with curricular decisions and other classroom operations. On numerous occasions, Mrs. Anne conveyed that she feels extremely trusted by her site administrators, but she yearned to gain the trust of all district administrators as well as outlier parents who questioned the work being done in her classroom.

For instance, there was a mom whose son was in my classroom who teaches at another school and every time I sent something home that had to do with math that she didn’t think had to do with following with fidelity of the Everyday Math curriculum that we were supposed to follow, she would not contact me, she would not contact my principal, she went to the head of the math department. And so one day, I’m sitting here during my planning day and two women show up at my classroom and introduce themselves as being the head of the math department and
her assistant. And they told me I could leave the room and they were going to count how many journal pages were completed in the children’s math journals because that would tell them whether I was appropriately using the curriculum or not and what the next steps would be. And it was like that all year long.

In a separate conversation in which Mrs. Anne attempted to describe her ideal curriculum, the conversation yet again cycled back to her deep desire to be trusted and given more autonomy in her lesson planning.

That is what I would like to have, but that would mean that somebody has to trust me as a professional to do my job. And I feel very trusted by my administrator… and I had my evaluation yesterday and that was one of the things that we talked about, was do I feel trusted as a professional? And I do… in this building. But the district does not convey to teachers that we are trusted professionals and that we can be given a set of standards, we can be given resources, and we can be given outcomes that are expected by the end that we can get there.

There is a resounding need for trust, both in Mrs. Anne’s words and her actions. When conversing about the struggles of her job, her body immediately conveys exasperation and utter exhaustion. To live a healthy life in which she feels valued and respected, it appears that Mrs. Anne needs more than what she is currently receiving.

**Passionate yet depleted and consumed.**

Mrs. Anne is not one to hide or minimize her emotions. When asked how her day is, Mrs. Anne will always give a truly genuine answer. When more complex questions are presented, thoughtful reflection always ensues. It is as refreshing as it is real. Her innately
reflective nature inevitably lead to many rich conversations, many of which lead down the same path in which she expressed frustration and exhaustion with the current state of her job. She speaks of leaving the career, but cannot do so without tears forming. When she is not able to find the words, the tears seem to convey just how conflicted she is.

Becoming an educator was part of her life’s passion, part of the fabric of who she is, but she also knows that the state in which she is currently residing is not healthy and viable for much longer. She speaks of a lack of balance with her personal life, poor mental health management, and a personality that is too deeply consumed for the type of work that teaching requires. For the sake of her mental health, Mrs. Anne yearns to compartmentalize her life, but struggles to do so. In her comments below, she speaks of not being able to find a sustainable balance.

I’ve been contemplating leaving for a long time. And I mean… you can see… I love doing what I do. But I’m just not balancing my personal life well. I’m not managing a lot of things well and I feel like either I need to find some magnanimous way to fix the things that I struggle with or I need to find a different way to do what I love to do that’s in a setting that isn’t just tearing me apart on the inside.

And again:

… And so to step into something that I thought I would have as much joy doing and find it to be so often pulling into the parking lot in tears and having to pep talk myself into getting through a day. That’s hard. And it’s hard to say do I want
to spend the next ten to fifteen years doing that everyday, or will it get better?

Will it change? And, it shouldn’t be this way.

At times it feels like Mrs. Anne is trying to figure it out in the midst of our conversations together. Torn, because she loves the school she is at and feels supported by her administrator, but she also realizes there is a bigger problem that exists.

I feel like the school is moving forward and we’ve really established some really good foundations, finally. It’s taken seven years. And I wondered if it would take seven to ten years before the school was really blazing forward and enrollment waitlists and that kind of stuff because I think that’s realistic for starting a business, starting a school, or starting anything, that it takes time. But, I’ve really come to realize that this school is not the issue that I’m struggling with. I’m struggling with the craft of teaching in public schools.

Her honest reflection leaves us both feeling despondent and frustrated. We ask how anyone has ever made it in a teaching profession for the long haul. What is the secret? How does one find a healthy balance that allows them to have a rich personal life and still be a phenomenal teacher? Unfortunately we have no answers, but we know we have taken the first step in finding a resolution; that is, we started the dialogue.

Summary

Always heartfelt and passionate, Mrs. Anne embodies what teaching and learning can be- a reflective process enriched with discovery, fortitude, and respect. During each interview, she took ample time to respond to all questions in a thorough, thoughtful manner. Her thoughtful nature was also present in the care and precision she applied to
her planning and instruction. Heavily conflicted by the state of public education, Mrs. Anne routinely articulates her frustration with district pressures and mandates.

**Response to Description from Mrs. Anne**

Congratulations also on finishing up your work with your dissertation. I love the depth at which you arrive at Ms. Anne!

Although it has been a rough journey, I can say with certainty that if the road had been idealistic and easy, I would not have needed to be so determined to push for creativity for the students nor myself. Had I had dream curriculum to work with, the power of the conflict and resolution unit would never have happened. The idea that struggle makes us grow has been very true; painful, exhausting, but true.

With that I need to tell you that during spring break I applied for a personal leave of absence and it was miraculously granted. I guess they don't grant these anymore unless it is medical or family leave. I will vacate my room and have until next March to decide if I will return. I am flooded with how grateful I am to have had so many creative opportunities where I am, grateful for the fine people I get to work with, and yet really looking at shifting my focus forward. I am actually working with a coach/counselor to help me weed out the emotions and focus on the facts so that I can make wise decisions. Being my age I feel right now that what I do for the next 10 to 15 years has to make a difference for those around me and also has to support my passions and abilities so I can grow and help others grow. It seems like that should be happening where I am, and in many ways it
is. Something is missing and I am giving myself permission to hit the pause button and work on it. This also means I need to find a job for the next school year, so I am putting some energy into that as well. I am not throwing in the towel on teaching, but seriously looking at how I can do what I love.

I sure hope our paths cross again. I really valued your feedback and insights during our visits, I also was very glad to get to know you. I wish you all the best.

(Personal Communication, April 21, 2015)
Chapter Five: Thematics, Evaluations, and Implications

Overview of the Study

Our world is developing at a rapid pace. The success of our society is fueled by creative and flexible minds that can generate innovative and authentic solutions to some of our world’s most complex problems (Parkhurst, 1999; Pink, 2005; Robinson, 2011). Our classrooms should reflect our society and prepare students for the world they are entering. Sadly, limited resources in public education and a focus on the “basics” have resulted in the narrowing of the curriculum, which, in turn, has led to a dramatically minimized role for the arts and creativity (Mishook & Kornhaber, 2006). Through this study, I hoped to reveal that today’s teachers, even with the many constraints and limitations they face, can still prepare our youth for the diverse world they will inherit by fostering their creativity through their approach to teaching. My hope is that the process of sharing the participants’ stories will create an awareness, which in turn has the potential to serve as a catalyst for further research studies.

In this study, I sought to illuminate the practice of teaching for four exemplary elementary school teachers who cultivate creativity in their students. Four research questions guided this study. 1) What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students? 2) How does the classroom organization and structure of physical space help to foster creativity and
creative habits of mind in students? 3) How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students? 4) What is the educational significance of these ideas and practices for students, teachers, and administrators? In order to respond to these questions, I use Educational Connoisseurship and Criticism, a qualitative arts-based research method developed by Elliot Eisner (1998).

Four public school elementary teachers were selected to participate in this study. I identified school sites based on mission statements that highlighted creativity and innovation. The school sites initially identified included approximately six from the Denver-metro area and one from the greater San Diego area. I chose to conduct research in the school sites that responded most positively and promptly to my request. After being introduced to the study and learning more about what I was seeking in participating teachers, I then asked school site administrators to recommend specific teachers from their school sites. Two of the four teachers teach at the same school site in San Diego while the other two participants teach in Colorado, in different school districts.

I conducted interviews and observations with teachers beginning in the late spring of 2013 and concluding in the winter of 2015. Initial contact and consent with participating teachers was established through email. I then began a series of classroom observations, spending two to three weeks in each classroom setting. I conducted the interviews after spending three to five days observing, which enabled me to establish a working connection with each teacher. This, in turn, allowed the interviews to flow in a more natural, comfortable manner. I had intended to conduct two interviews with each teacher; however, in the end, I averaged closer to four interviews per participant. There
were a variety of factors that contributed to this. For example, rather than conducting interviews in hour-long segments, most teachers preferred to do the interviews during short breaks they had scattered throughout the day. In other scenarios, the teachers simply had a lot to say and I was eager to hear them out. I followed an interview schedule (Appendix B), and inquired about teacher intentions, curricular approaches, the physical environment, and teacher pedagogy. I completed the observations and interviews at individual school sites prior to beginning work with the next participant so that I could focus my attention on one teacher at a time.

In Chapter Four, I organized the observational and interview data into three major sections: The Intentional Dimension, The Pedagogical Dimension, and The Curricular Dimension. This organization was chosen based on Eisner’s (1998) five dimensions of schooling. I also presented observational data and interview data on the physical environment of the classroom, as guided by one of my four research questions. Additionally, I began each teacher description with background information presented in the form of short vignettes. The presentation of this background information existed to provide a more holistic image of the participating teachers. Lastly, I summarized prevailing themes and concluding thoughts on each participating teacher in a section titled “Closing Thoughts.” In Chapter Five, I now analyze and evaluate these descriptions to address the four research questions that guided this study. I conclude each response to the research questions by returning to the conceptual framework that guided this study.
Discussion of Themes and Response to Research Questions

As was noted earlier, this research study was informed by four guiding research questions: 1) *What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students?* 2) *How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students?* 3) *How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students?* 4) *What is the educational significance of these ideas and practices for students, teachers, and administrators?* The research questions focused on the intentional dimension and the pedagogical dimension were selected based on Eisner’s (1998) five dimensions of schooling. I also chose to examine the physical environment of the classroom and its potential to cultivate creativity as organized by the teacher. Lastly, I summarize the significance of my findings and their potential impact on the field of education.

At the onset of the study, I intentionally chose not to include Eisner’s curricular dimension, as I wanted the study to be focused on practices that the participating teachers had complete control over. As with any public school, the four teachers at the three participating sites did not have complete autonomy in the curricular choices implemented at their school site. However, as will be presented in the pages that follow, I found the curricular dimension to be inseparable from the teacher’s practices and therefore, I found it crucial to include as an emergent theme.
Framework Design and Application

Next, I provide a few necessary general framework descriptions for ease of navigation and comprehension. The conceptual framework diagram below exits to cohesively summarize the application of the CRISPA and CREATE frameworks to the research questions guiding this study. The most critical analysis of this conceptual framework takes place in the interplay between the two theories, or the center of the Venn diagram. I posit that the areas of overlap are at the heart of cultivating creativity in the classroom. It should also be noted that the blue rectangle at the bottom of the Venn diagram lists areas of recurring overlap, or emergent themes, that were not directly addressed through the CRISPA and CREATE frameworks. These additional themes are included as they were prominent amongst the teachers and therefore important to the analysis. Lastly, the themes represented outside of the overlapping section are themes that I did not directly observe during my time in the classroom.

It should also be noted that the themes within CRISPA and CREATE had to be observed in at least two of the four participating teachers crafts prior to being included in this framework. In order to inform and guide the reader, I have documented the individual presence of these themes in a table that follows each conceptual framework. These themes could be observed in one of two ways, either they were explicitly stated during interviews (noted as S within the table), or they were witnessed during observations (noted as O within the table). If a section is left blank, it simply means the theme was not observed during the time I spent in the classroom. An illustrative Venn diagram is provided below for clarity. The red text boxes provide user information.
Research Question One: The Intentional Dimension

What are the intentions of teachers who cultivate creativity and more specifically, creative habits of mind in students?

As evidenced in Chapter Four, during the formal interviews, I asked the teachers to verbalize their intentions for their students. While specific differences existed, there were three underlying commonalities in the teacher’s responses. All teachers addressed the process of learning, stating that they strive to engage students in a rich process of learning and critical thinking. Similarly, all participating teachers referenced the importance of joyful discovery in the learning process. The last consistent theme amongst...
the four participating teachers was the desire to create a safe atmosphere in which students felt comfortable enough to be themselves and take risks in the learning process.

Mrs. Inder spoke of the importance of joyful discovery when she shared a personal underlying goal, stating that through her teaching, she would like the “world to open up for them” as they learn to “discover and find joy in new things.” She shares that she wants there to be an “atmosphere of joy and laughter” where students can be themselves and feel comfortable enough to “be silly and sing.” However, at the same time Mrs. Inder emphasizes that she also wants the students to understand learning boundaries and have the ability to regulate their behavior according to the learning situation presented. She states:

I want there to be an atmosphere of joy and laughter, but also a bit of seriousness.
I think I want all those things in the classroom. I want them to be able to be serious when it’s time to be serious, funny when it’s time to be funny and to appreciate laughing together, singing together, and being together, but also to be able to know how to stop when it’s time to move on to something else.

Mrs. Inder also highlights the importance of fostering intrinsic motivation in her students, stating that she deliberately plans learning experiences and modifies behavior in ways that will encourage students to acquire “high standards of excellence” that come from within. Her intention is to emphasize the importance of taking pride in one’s work, so that they are routinely asking how they can improve their output. This approach is consistent with the research on the relationship between creativity and motivation.

Amabile (1987, 1989, 1996) emphasized the important relationship between intrinsic
motivation and creative behavior, citing that intrinsic motivation encourages students to tinker with new ideas and explore meanings on a deeper level.

Lastly, Mrs. Inder also reflected on the importance of building confidence in her students. Her intention is to develop capable and confident learners who feel as though they can “turn their hand to anything” and that they are “capable of achieving anything.” She shared a personal reflection in which she recalls feeling as though her math skills were inadequate in elementary school, as she consistently relied on a calculator for all math problems presented to her. She notes that because of this experience, it is very important to her that her students develop “strategies they can use in their head, without having to rely on other tools” to arrive at an answer.

Much like Mrs. Inder’s intentions, Ms. Nunes intentions are heavily influenced by her personal experiences as a student. Ms. Nunes recalls the first time she truly understood the mathematical concept of carrying and borrowing, stating that she was taking a math class for teachers in college at the time. She explains that gaps in her own learning, particularly in mathematics, have motivated her to consistently teach her students a rich understanding of concepts rather than isolated academic skills. Her intention is to teach her students to be “critical problem solvers” that grapple with concepts in a flexible, fluid manner. The National Council of Teachers of Mathematics (2000) would praise Ms. Nunes and her stated intentions as their standards overview highlights the importance of teaching students to understand concepts rather than memorizing facts or algorithms. The NCTM argues that providing students the
opportunity to arrive at conceptual understandings allows them to apply these understandings to novel situations.

Ms. Nunes also emphasizes that she wants students to learn to collaborate in an effective manner. She strives to teach students how to communicate effectively, listen and respond appropriately to their peers and to provide helpful encouragement and feedback. She teaches these skills through intentional student grouping, modeling, and by providing many classroom opportunities to safely practice these skills. Lastly, Ms. Nunes shares her intention of providing a safe environment in which students feel comfortable “taking risks and making mistakes.” She emphasizes that she wants students to take leaps in learning, knowing that they will not always succeed, but that they will most certainly learn something valuable in the process. She does this by providing them with room to be themselves, letting them know their work and input is valued, and by celebrating student differences. Starko (2014) summarizes the importance of providing a safe, nurturing environment when she states: “If students are to feel safe enough for exploration, risk taking, and challenge, they must feel that their teacher and the school accept students just like them” (p. 273). Other researchers (Nieuwenhuizen & Groenewald, 2006; Collins, Smith, & Hannon, 2006) highlight the importance of providing opportunities for risk-taking, stating that it is a crucial component to an individual’s development of creativity and innovation.

Mrs. Anne’s intentions echo those of Ms. Nunes, as she also emphasizes the importance of encouraging students to take risks in the learning process. She stresses that taking risks and making mistakes are a vital part of the learning process that encourage
our brains to grow and develop. In fact, the words she uses with her students are: “Oh my goodness. You made a mistake. I bet your brain is growing and changing now so that the next time you are going to feel totally different about this.” Mrs. Anne believes real growth comes from our response to failure.

An additional intention that Mrs. Anne shares is fostering students’ independent thinking. She encourages students to develop conviction and to learn to think for themselves. Along a similar sentiment, Mrs. Anne wants students to become actively immersed in the learning process as “doers of their learning.” Above all else, Mrs. Anne stresses that she wants her students to leave her classroom loving the process of learning. “I want them to be excited about learning, super on fire, excited about learning.”

When asked to articulate her intentions for her students, Mrs. Marie concisely summarizes her top priority by stating, “Fun is really important to me.” She expands on her intentions when she states that she wants the students to be joyfully engaged in the learning process. To her, laughter and approaching learning with high levels of enthusiasm are of utmost importance. Mrs. Marie also echoes similar statements made by the other participating teachers in that she strives to “create a safe environment” in which risk-taking can be encouraged. She does this through simple, caring interactions with students, whether it be through dialogue or subtle body language. While observing in Mrs. Inder’s classroom, I could not help but be reminded of Nel Noddings (1992) work on care in the classroom environment. Noddings reminds us that the “desire to be cared for is almost certainly a universal human characteristic” and she heavily supports its presence in the classroom (p. 17). As I highlighted in Chapter Four and as I will once
again revisit in this chapter, Mrs. Inder strives to create an environment in which students know they are cared for.

What the participating teachers did not mention as part of their intentions was also of interest to me. All participating teachers were selected for this study as they were identified by their principals as teachers who cultivate creativity; however, the word “creativity” was not directly mentioned in any teacher’s intentions. To put it differently, not all of the teachers immediately identified with being creative or teaching for creativity in students. In fact, Mrs. Inder stated this exact sentiment during one of the formal interviews.

I don’t know if I think a lot about creativity. I want the kids to feel open to many possibilities and I think creativity is quite a hard concept to define. It’s often misunderstood as being quirky. Or you know, ‘This is really creative’ when someone is just wearing something unusual.

After numerous conversations, I learned that this was, in largest part, due to the fact that most teachers were strongly deterred by their own perceptions and personal definitions of creativity. They simply were not sure how to define creativity. Just as the research (Craft, 2003; Parkhurst, 1999; Welsch, 1981) suggests, there are significant limitations in the widespread lack of agreement about what the term creativity means. As presented in the literature review in Chapter Two, Welsch (1981) highlights perhaps the most pressing limitation by pointing out that the widespread lack of agreement about what creativity means causes educators to be “unable to discern what is creative and what is not.” And, if teachers “cannot identify creativity in the behavior of students, they
cannot consciously nurture… its development” (p. 2). A few of the participating teachers were defining creativity as an act that is highly creative, eminent, and field-altering, also referred to in Chapter Two as “Big C creativity.” Once the teachers were presented with the definition of “teaching for creativity” that this study employs, they more easily connected with the idea of being creative and teaching to cultivate creativity. In fact, as I will address later in this chapter, all teachers identified with teaching some, if not all, creative habits of mind.

Research Question One: The Intentional Dimension

![Conceptual Framework, The Intentional Dimension](image)

Figure 4: Conceptual Framework, The Intentional Dimension

<table>
<thead>
<tr>
<th></th>
<th>Mrs. Inder</th>
<th>Mrs. Marie</th>
<th>Ms. Nunes</th>
<th>Mrs. Anne</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>O: Students were</td>
<td>O: Students were</td>
<td>S: Engaged in the</td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>consistently actively engaged, particularly in project work and role-play activities; students participated in icebreaker movement games throughout the day.</td>
<td>actively engaged during project work.</td>
<td>learning and being the doers of their learning and not just sitting like little lumps.”.</td>
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<tr>
<td>Connections</td>
<td>S: Mrs. Inder states she wants “authentic learning connections for students”; Encourages students to understand how their learning is connected, attempts to do this through bulletin board displays. O: Project-based learning activities</td>
<td>O: Project-based learning activities organized around a theme. S: Wants students to learn information in a coherent, connected way rather than facts in isolation.</td>
<td>O: Well-designed arts-integrated curriculum that is innately connected to other learning experiences.</td>
<td></td>
</tr>
<tr>
<td>Risk-taking/Safe Environment</td>
<td>O: Students feel safe and therefore take many learning risks. O: Mrs. Marie created a safe, caring environment through her words and interactions with students. Students felt comfortable taking risks. O: Courage is strongly emphasized throughout the school, on student work “Courage is taking a risk.”</td>
<td>O: Encourages students to question their understandings and continue to investigate until they have become “experts”. S: “I also, very intentionally put them in uncomfortable situations so that they have to take risks and understand that taking a risk and making a mistake is part of learning.”</td>
<td>S: “I also, very intentionally put them in uncomfortable situations so that they have to take risks and understand that taking a risk and making a mistake is part of learning.”</td>
<td></td>
</tr>
<tr>
<td>Perceptivity (Conceptual Understanding)</td>
<td>O: Units of study and individual lessons were planned with the goal of rich, conceptual understandings.</td>
<td>O: Practicing perceptivity through PBEC lessons (p. 64) Stated Intentions: It’s understanding those core concepts and actually understanding what they’re doing when they’re doing a problem” (p. 61).</td>
<td>O: Well-designed arts-integrated curriculum that is innately connected to other learning experiences, creating a holistic understanding.</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>S: “Through experiencing adventures and researching adventures, we will sharpen our resilience, hone our risk-taking, and develop strong support for each other.”</td>
<td>S: School values are shared in the classroom, consist of being courageous and resilient.</td>
<td>S: “I try to give them the most positive feedback when they’ve failed because you don’t ever make progress unless you fail at something and you have to try again.”</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Stated and Observed Examples of the Intentional Dimension

| Thoughtfulness (Critical Problem Solving) | S: I think one of my biggest values is just teaching them how to be problem solvers.” | “I think one of my biggest values is just teaching them how to be problem solvers.” |
| Intrinsic Motivation | O: Behavior expectations are in place to encourage intrinsic motivation rather than external motivation; praises effort, not product. | O: Behavior expectations are in place to encourage intrinsic motivation rather than external motivation; praises effort, not product. |
| Independence and Autonomy | O: Encourages autonomy by offering students a great deal of choice throughout the school day. | O: Encourages autonomy in thought production; school values independent thinkers. |
| Joy and Laughter | O: Pauses to laugh with the students; students feel compelled to share jokes with her. | S: Fostering independent thinking- “I hope that I’m giving them a foundation to know how to think for themselves.” |
| Love of Learning | S: “I want there to be an atmosphere of joy and laughter, but also a bit of seriousness.” | O: “I think fun is the first thing.” |

I observed a wide number of CRISPA and CREATE themes present in the teacher’s intentions. In a few cases, I found the verbiage used in the themes to be slightly different, while the meaning behind the verbiage was very similar. In these situations, I chose to combine the terms for purposes of clarity and succinctness. For example, the emergent theme of conceptual understandings fits well under the larger umbrella of perceptivity. That is, learning for conceptual understanding requires deep analysis and reflection, which aligns with perceptivity. I also chose to combine thoughtfulness and
critical problem solving as approaching learning, or problem solving, in a thoughtful manner is very similar to approaching learning with a critical eye.

The emergent themes within the intentional dimension include intrinsic motivation, independence and autonomy, joy and laughter, and love of learning. All four teachers cited the importance of independence and autonomy, but in varying contexts. Mrs. Inder spoke of independence in terms of “internal independence” as she works hard to develop her students desire to work to a high standard independently. Mrs. Marie worked to cultivate her student’s independence as she noted on several occasions that she has a very immature group of students who need explicit instruction and modeling in this skill area. The most obvious way Mrs. Marie accomplished this was through intentional grouping strategies and consistent, motivating dialogue. Mrs. Anne shared her intentions to foster independent thinking when she stated, “I hope I am giving them the foundation to think for themselves.”

Finally, the CRISPA and CREATE themes that were present included connections, risk-taking/safe-environment, perceptivity/conceptual understanding, active engagement, thoughtfulness/critical problem solving, and resilience.

Research Question Two: Physical Environment

How does the classroom organization and structure of physical space help to foster creativity and creative habits of mind in students?

The physical environment of every classroom is unique, as it is, on varying levels, a reflection of the teacher who inhabits its space. In each of the three school sites I observed, teachers were given complete autonomy when organizing their classrooms.
With that being said, they were, of course, slightly constrained based on existing school furniture and the general architecture of the room. Regardless of these uncontrollable factors, each teacher managed to create a classroom space that was thoughtfully unique and purposefully organized.

I collected the majority of data on the physical environment of each classroom through observations; however, I also asked each teacher to articulate her perspective on the importance of the physical space during a formal interview. While I tried not to limit what I was observing, I did reserve a keen awareness for furniture arrangements (McCoy and Evans, 2002), particularly student desk arrangements, wall displays, student access to materials, and general student autonomy as influenced by the physical environment.

There were many commonalities in the physical environments of the four classrooms. As an observer, I found the most evident of the commonalities to be the freedom in choice that students were provided with. That is, in each of the four classroom environments, students were given a great deal of autonomy to make decisions about things such as which area of the classroom they preferred to work in during independent work, where they would sit in group meeting time, or how they would maintain optimal focus.

In each of the four classrooms, students had the flexibility to choose where they would complete their independent work and how they would best regulate their behavior. For example, in Mrs. Inder’s classroom, some students chose to work independently on large area rugs in the front and back of the classroom while others sat at their desks with large cardboard privacy boards standing tall. In Mrs. Anne’s classroom, students often
worked at their desks while donning large noise canceling headphones. I observed a student in Mrs. Marie’s classroom reading independently under Mrs. Marie’s desk as tight spaces helped her feel relaxed and comfortable. Lastly, in Ms. Nunes’ classroom, students were observed sitting in rocking chairs, an unconventional cube seat, and at a standing desk while working on project work with a partner. Starko (2014) reminds us that the classroom furniture and physical arrangement of the space plays a valuable role in sending students messages about the level of independence, choice, and creativity they will encounter in their classroom space. Starko continues by arguing that innovative classrooms should have physical spaces that “literally and metaphorically move as needed” (p. 298).

A second commonality that I observed, which also promotes student independence, is the access students were given to classroom materials. In each of the four settings, students had complete control over when and how to use the classroom materials. Materials were kept within reach for students and all bins and shelving were labeled to promote ease. It was evident that they had been taught a routine as well as clear expectations on how to properly care for the materials and the space had been outlined. Each teacher placed a great deal of trust in the students, assuming they had the capabilities to successfully manage the classroom space. This, in turn, promoted independence.

When I entered each of the four classrooms, a few physical similarities caught my eye. These similarities included colorful bulletin boards, authentic displays of student work, and student resources displayed on posters hanging throughout the classrooms. In
Mrs. Anne’s classroom student self-portraits and volcano models were displayed, while Mrs. Inder showcased student built replicas of the California missions and student writing samples. Ms. Nunes displayed multiplication stories as well as student artwork depicting what courage means, and Mrs. Marie showcased student poetry and group math projects. Also worthy of reflection, I perceived all four classroom environments to be “visually interesting,” as documented through the classroom bulletin board displays and the displays of project-based work. As presented in the literature review, many researchers (Amabile, 1983; Guilford, 1967; McCoy and Evans, 2002; Stein, 1974) have suggested that “visually interesting” environments promote creativity potential.

As one might predict, while there were many commonalities, there were also unique differences in the classroom environments. For example, the four teachers approached the wall displays, or bulletin boards in very different ways. Mrs. Anne expressed her desire to display authentic student work and purposeful charts and diagrams made during whole class lessons focused on integrated units of study. She emphasizes that the work is student work and therefore it is not always the most beautiful presentation of learning, but that she finds it crucial to display their understandings in authentic ways. Lastly, Mrs. Anne notes that her goal is that the work on the walls can serve as documentation of learning for visitors as well as a space for student reflection.

On a similar vein, Mrs. Inder also views the classroom walls as a space for reflection and celebration; however, she emphasizes the aspect of reflection stating that Armstrong Elementary receives a lot of visitors throughout the school year and her goal is for students to be able to “talk the visitors through a project” while simultaneously
reflecting on the project themselves. She hopes the physical environment, namely the bulletin boards, can encourage her students to see that each day at school holds meaning, meaning that is applied to cumulative goal of deep comprehension. She states, “I want them to know that each step of the way is considered and why one thing led to another.”

While Ms. Nunes and Mrs. Marie certainly take pride in the bulletin board displays, the level of priority is different than that of the other participating teachers. When asked about the physical environment they both laughed subtly and in a slightly embarrassed tone reference the “disarray” and the current state of “neglect” that the physical environment is in. Ms. Nunes mentions needing to put student work on display for the upcoming open house while Mrs. Marie states that she simply wants the environment to be “cheery” and “primary” with their work all over the walls. It is evident that while the walls are considered, they are not of utmost importance for Mrs. Marie and Mrs. Inder.

A second difference I observed within the four classrooms was the seating arrangement as orchestrated by existing school furniture and the building design. Because of the existing furniture, shape of the room, and the locations of windows and doors, the participating teachers occasionally referenced feeling as though their classroom seating arrangement was at odds with their ideal pedagogical approach. The only two teachers who did not express furniture and room design limitations were Mrs. Inder and Mrs. Marie. Each of their classrooms contained six large round tables that seated four students to a table. Ms. Nunes conveyed that while her classroom was large and functional in design, the design of the individual desks often left her feeling frustrated. Her seating
arrangement consisted of three round tables, seating four students each, and twelve individual student desks that had been pushed together into clusters of two or three throughout the room. She stated that the individual desks consisted of an odd trapezoid shape, which inevitably made them hard to work with and severely hampered how students could be grouped and positioned around the classroom. Mrs. Anne only alluded to furniture and room design limitations briefly during formal interviews, mentioning the difficulty of having a small classroom space. I also noticed slight limitations with space during classroom observations as students navigated the room. With that being said, Mrs. Anne and her students managed these limitations extremely well, improvising when the need arose. For example, in order to perform a whole class freeze frame activity, students had to relocate all desks in the classroom by pushing as far as they could manage against the perimeter of the classroom. They did this quickly and efficiently, so as not to take away from learning time.
Research Question Two: The Physical Environment

Figure 5: Conceptual Framework, The Physical Environment

<table>
<thead>
<tr>
<th>Category</th>
<th>Mrs. Inder</th>
<th>Mrs. Marie</th>
<th>Ms. Nunes</th>
<th>Mrs. Anne</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curiosity</td>
<td>O: “Wondering Wall” bulletin board in which students can post wonderings they want to explore.</td>
<td>O: Classroom materials</td>
<td>O: Display of library research books for animal investigations</td>
<td>O: Rich displays and diagrams throughout the classroom, leading students to question more deeply.</td>
</tr>
<tr>
<td>Environment-Setting</td>
<td>O &amp; S: Highly detailed bulletin boards with student work and descriptions of project work.</td>
<td>O: Colorful student artwork on walls</td>
<td>O &amp; S: Flexible seating arrangements support creativity and innovation, rocking chairs, Standing Desk</td>
<td>O &amp; S: Colorful student artwork on walls, diagrams and pictures throughout; interactive CRISPA poster</td>
</tr>
<tr>
<td>Active Engagement</td>
<td>O: Large area rug in front of room supports whole-group activities/engagement; role-play area</td>
<td></td>
<td></td>
<td>O: Students act out freeze frames and other TPR activities on the rug in the front of the classroom.</td>
</tr>
<tr>
<td>Independence and Autonomy</td>
<td>O: Students have access to all materials; Students are given freedom on where to work</td>
<td>O: Students have access to all materials; Students are given freedom on where to work</td>
<td>O: Students have access to all materials.</td>
<td>O: Students have access to all materials.</td>
</tr>
</tbody>
</table>

Table 3: Stated and Observed Examples of Physical Environment

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The majority of the classroom teachers promoted creativity in the physical environment of the classroom through the following CRISPA and CREATE themes: curiosity, environment-setting, and active engagement. Independence and Autonomy existed as an emergent theme. Curiosity was encouraged in the physical space through rich displays of learning, specifically on classroom bulletin boards. In two of the four classrooms I observed ways in which the physical space promoted active engagement. These included large common areas utilized for group role-play and theatrical experiences. Lastly, the emergent theme of independence and autonomy was apparent in each of the four classrooms. This theme was presented as students having access to all learning materials, and as students being given the freedom to work in different spaces around the classroom.

**Research Question Three: The Pedagogical Dimension**

*How does the teacher’s pedagogical approach help to cultivate creativity and creative habits of mind in students?*

The process of distilling themes within the pedagogical dimension proved to be rather challenging as there were areas of great overlap between the pedagogical dimension and the intentional dimension. However, when one considers the content of the two dimensions, it becomes very evident why such an overlap might exist. Recall that in the intentional dimension, the teacher’s stated intentions were explored, while the pedagogical dimension aims to uncover the teacher’s personal signature, or the subtle differences in approach that make each teacher’s craft unique. For example, a teacher’s tone, use of instructional grouping, approach to lecturing versus holding discussions, and
level of excitement and enthusiasm are all topics that could be considered. In summary, there are individual, pedagogical differences that help shape the classroom experience for each child. One would hope that the teacher’s intentions and beliefs on pedagogy are similarly aligned, therefore creating the potential for great overlap.

Eisner (1998) reminds us that “all curricula are mediated by a teacher” and that “what students learn in the classroom is never limited to what teachers intend to teach or to curriculum content” (p. 77). Because of this, the pedagogical dimension, in which we examine the teacher’s personal signature left on the educational experience, has become an area of great attention. Eisner (1998) cites the pedagogical dimension as a crucial element for any educational connoisseur to explore as it helps us understand the context of learning and the subtle or extreme differences in a classroom environment as created by the teacher’s pedagogical approach. Eisner (1998) reminds us that the act of teaching is a “complex human performance” and by closely examining the pedagogical dimension, one can start to appreciate the beauty in “productive diversity rather than standard uniformity” (p. 79).

The four participating teachers articulated and demonstrated many similarities in their pedagogical approaches to teaching. Some, if not all teachers, exhibited the following pedagogically inspired traits: they viewed themselves as facilitators of learning, they sought to promote independence and autonomy through pedagogical choices, they took steps to ensure teaching for conceptual understanding, and they sought to encourage flexible thinking in students.
Each of the four participants demonstrated a desire to facilitate rather than dictate student-learning experiences. All teachers stated this during the formal interviews, and it was also evident when observing their classroom environments. Upon entering both Mrs. Inder and Mrs. Marie’s classrooms, I often found it difficult to immediately locate them in the classroom as they were often engrossed in groups with students in different meeting areas around the room. Mrs. Inder reflected on this during formal interviews, stating that nothing makes her happier than when a parent or visitor has difficulty finding her in the classroom. She strives to foster independence and autonomy in students, and by having a limited presence at times, she accomplishes this. Mrs. Marie promoted independence by giving students a great deal of choice and encouraging them to take the reins in decision-making. In class discussions, Mrs. Marie’s voice was heard rather infrequently. Ms. Nunes also demonstrated a desire to assume the role of facilitator in hopes of encouraging autonomy and independence. During class lessons, she often turned the conversation over to the students to continue discussions in small groups. She also gave students choice in topics of study, partnerships, and seating arrangements. While she wished to consistently facilitate learning, Mrs. Anne did express inner conflict with the practically of constantly playing the role of facilitator, stating that you cannot successfully facilitate something the students know very little about. She mediated this inner conflict by finding a comfortable balance between “dispensing information” and facilitating learning, as she labeled it.

Simulation and role-play activities are often used in classrooms geared toward the cultivation of creativity as they provide the opportunity for students to enhance their
flexible thinking and overall level of engagement (Brown, 2014; Taylor, 1998). I observed role-playing and simulation opportunities in both Mrs. Inder and Mrs. Anne’s classrooms. As detailed in Chapter Four, Mrs. Inder often chose to enrich group reading time by encouraging students to participate in role-playing activities in which they acted as lead characters from the text they were reading. Mrs. Inder often modeled this process by allowing students to interview her as she performed as the lead character, Odysseus. Mrs. Anne provided students with a unique opportunity to act out scenes from a picture book, *Matthew and Tilly*, in which they were learning about fairness and justice. The students worked in small groups to perform single lines from the texts. They did this by orchestrating a “freeze frame” that portrayed the message in the text. This activity paralleled exercises commonly used in the strategy of Total Physical Response (Asher, 1966). Total Physical Response, or TPR as it is commonly known, will be discussed in greater detail in the Further Research section of this chapter. Generally speaking, providing students with opportunities to role-play and perform simulation activities has been shown to promote flexible thinking, which is an important element of creativity (Brown, 2014; Taylor, 1998).

All four participating teachers sought to teach for conceptual understanding, as evidenced by their instructional approach. When asked about her pedagogical approach, Ms. Nunes shared that she strives to provide opportunities for students to grapple with the same, challenging problem for weeks, rather than assigning the students a plethora of smaller problems to practice the same skill. I witnessed this in curricular choices Ms. Nunes made as she routinely assigned students projects that required knowledge
application and synthesis of understanding. For example, after teaching students about division through a series of short lessons and a read aloud, Ms. Nunes asked her students to write their own multiplication story that would demonstrate their knowledge. Mrs. Anne demonstrated her goal of teaching students holistic understandings of concepts through her center-based approach. While teaching about natural processes that shape the earth, Mrs. Anne organized rich, varied learning activities such as building a volcano model, drawing and labeling the parts of a volcano, reading and responding to current events, and writing “how to build a model of a volcano” descriptions. Mrs. Inder strives to teach children to see the ways their learning connects. This even permeates on to the classroom bulletin boards as she shares that she tries to organize and display their learning experiences in ways that will help them make connections across disciplines. Mrs. Inder consistently aims to teach her students to look for the bigger understanding as she routinely asks them to build on their knowledge so that they are not just left with isolated facts.

All teachers also spoke of wanting to instill curiosity and wonderment in their students. Ms. Marie demonstrated this by routinely asking students questions that helped them expand their understandings and urged them to take their “wonderings” to the next level. Ms. Nunes instilled wonderment in her students by encouraging them to pursue areas of passion during Curiosity Crews and by providing them the opportunity to select individual topics of study in science and social studies projects. While Mrs. Inder never directly mentioned curiosity and its application to her pedagogical approach, I observed her teaching style and how it elicited a natural wonder in the students as she introduced
topics and activities with great intrigue and enthusiasm. Mrs. Anne reflected on the application of curiosity at The Learning Place, noting that she believes most teachers are well rehearsed in organizing activities and classroom space in a way that promotes curiosity and wonder. However, she also emphasized that she feels as though the level of curiosity she can encourage in her students is hindered by district accountability and curricular requirements. She states:

Curiosity is hard because we have such narrow limitations for what they are supposed to be doing and I have to be very mindful of my actual time and teachable moments where I can just let them run with their curiosity and let them go are so rare because of what’s required. So, sadly, I feel like that is probably not where I would want it to be, but I’m also so accountable with what I have to do with my time.

Perhaps most interesting, was the process of identifying what Eisner (1998) refers to as each teacher’s personal signature. These pedagogical subtleties, while they can be difficult to identify, are what make each teacher’s craft truly unique. On average, I found that after having spent at least one complete week in each classroom setting was when I began to see the subtleties a bit more clearly. A consistent theme that I witnessed in each teacher’s personal signature was that of care. Each teacher created a safe, nurturing environment in which the students felt comfortable to be themselves and engage in the process of learning. It was obvious through student’s body language and verbal interactions that they felt cared for, respected, and protected by their classroom teachers.
Mrs. Inder’s personal signature can be summarized into the role of a motivating coach. She consistently provided direction, guidance, and support to students while also pushing students to reach their optimal performance by encouraging continuous improvement and by maintaining high academic and behavioral expectations for each of them. While Mrs. Inder could often be seen encouraging and even instigating laughter, she was also quick to rein the students back in to maintain focus. Similarly, Ms. Nunes held high expectations for students, pushing them to stretch their minds and their understandings of mathematical concepts. She maintained a focused, driven classroom environment in which students were expected to stay on task and perform at a high level. With that being said, Ms. Nunes also paused frequently to appreciate humorous moments and witty commentary from students. Mrs. Marie’s personal signature is one of great care and concern. With a reassuring hand on the shoulder or a quick yet genuine “How are you doing?”, Mrs. Marie is quick to offer guidance and support to struggling students. At the same time, Mrs. Marie maintains an incredibly upbeat, positive energy that permeates the classroom walls. Her enthusiasm is contagious and her energy is motivating. It is apparent that the students recognize Mrs. Marie’s energy and use it to fuel their own learning as they work with great confidence and inspiration. In Mrs. Marie’s classroom, fun is a staple in the learning process. Finally, Mrs. Anne also shows a remarkable amount of care and concern for her students. She utilizes a consistently harmonious tone when talking to students, always appearing composed and confident. She also exudes a healthy level of seriousness, which in turn generates a an unwavering expectation of
student commitment to learning and high quality production. Mrs. Anne gives respect and expects students to reciprocate. She is driven, focused, and inspiring.

Research Question Three: The Pedagogical Dimension

![Conceptual Framework, The Pedagogical Dimension]

Figure 6: Conceptual Framework, The Pedagogical Dimension

<table>
<thead>
<tr>
<th>Curiosity</th>
<th>Mrs. Inder</th>
<th>Mrs. Marie</th>
<th>Ms. Nunes</th>
<th>Mrs. Anne</th>
</tr>
</thead>
<tbody>
<tr>
<td>S: On modeling curiosity: “Sometimes I have to help the students be curious. They don’t always see all the possibilities.”</td>
<td>O: Encourages deep questioning with hopes of igniting passion and curiosity.</td>
<td>S: “One of the thinking strategies that Susan and I focus on is asking questions, and so with curiosity, we’ll teach them how to channel that.”</td>
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</tr>
<tr>
<td>Resilience</td>
<td>S: Has direct conversations with students about resilience throughout the year: “Because I believe when you are resilient you can do anything.”</td>
<td>S: “Being resilient, I think that’s huge. I also try to share moments with them about my life and when I’ve exhibited some of these qualities.”</td>
<td>S: “I try to give them the most positive feedback when they’ve failed because you don’t ever make progress unless you fail at something and you have to try again.”</td>
<td></td>
</tr>
<tr>
<td>(Authentic) Connections</td>
<td>S: Mrs. Inder states she wants “authentic”</td>
<td>O: Project-based learning activities</td>
<td>S: Wants students to learn information in a</td>
<td>O: Well-designed arts-integrated</td>
</tr>
<tr>
<td>Category</td>
<td>Notes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Learning Connections</td>
<td>Encourages students to understand how their learning is connected, attempts to do this through bulletin board displays. O: Project-based learning activities organized around a theme.</td>
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<td></td>
</tr>
<tr>
<td>Risk-taking/Safe Environment</td>
<td>O: Students feel safe and therefore take many learning risks. O: Mrs. Marie created a safe, caring environment through her words and interactions with students. Students felt comfortable taking risks. S: “With risk-taking, part of our school model is being courageous, so we talk about that a lot like just in the classroom.” S: “I also, very intentionally put them in uncomfortable situations so that they have to take risks and understand that taking a risk and making a mistake is part of learning.”</td>
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</tr>
<tr>
<td>Sensory Experiences</td>
<td>O &amp; S: Project-based excursions included hiking outings, camping trips, kayak excursions and rock climbing adventures. O: Community engagement connections as part of their school mission statement means they go on engaging field trips around Denver (art museums, history museums, etc.) O &amp; S: The arts-integration model means that students have the opportunity to engage their senses in the arts- music, ceramics, drawing, theater</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Perceptivity (Conceptual Understanding)</td>
<td>O: Units of study and individual lessons were planned with the goal of rich, conceptual understandings. O: Encourages students to question their understandings and continue to investigate until they have become “experts”. S: Practicing perceptivity through PBEC lessons (p. 64) S: It’s understanding those core concepts and actually understanding what they’re doing when they’re doing a problem” (p. 61). O: Well-designed arts-integrated curriculum that is innately connected to other learning experiences, creating a holistic understanding.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Engagement</td>
<td>O: Students were consistently actively engaged, particularly in project work and role-play activities; students participated in icebreaker movement games throughout the day. O: Students were actively engaged during project work. S: Engaged in the learning and being the doers of their learning and not just sitting like little lumps.”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>S: “I want them to be intrinsically motivated.” O: Behavior expectations are in place to encourage intrinsic motivation rather than external O: Behavior expectations are in place to encourage intrinsic motivation rather than external</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4: Stated and Observed Examples of the Pedagogical Dimension

Interestingly, all six CRISPA themes—connections, risk-taking, imagination, sensory experiences, perceptivity, and active engagement—were present in the pedagogical dimension. That is, the participating teachers stated or demonstrated substantial evidence documenting the presence of all six CRISPA themes in their pedagogical approach to teaching, as evidenced in the table above. In terms of the CREATE framework, Curiosity and Resilience were also present in the pedagogical approach of three of the participating teachers. Finally, the emergent themes for the pedagogical dimension included intrinsic motivation, independence and autonomy, facilitators of learning, and joy and laughter.
Research Questions Four: Significance of the Study

What is the educational significance of these ideas and practices for students, teachers, and administrators?

By conducting this study, I had hoped to reveal that today’s public school teachers can still foster student’s creativity regardless of the many district and state-level constraints they face. Additionally, I wanted to uncover commonalities within the participating teachers’ practices. As presented in earlier pages, through the time spent in the four classrooms, and ample reflection, I was able to distill common themes at the intentional, curricular, and pedagogical levels. The vignettes I wrote sought to capture the essence of the rich classroom environment each teacher worked so tirelessly to create. In the end, I believe I demonstrated four classroom scenarios where teachers worked hard to overcome public school challenges to cultivate student’s creativity in the classroom.

Sadly, there are two sides to this equation. While the participating teachers demonstrated that cultivating creativity in today’s public school classrooms is feasible, they also expressed immense dissatisfaction with their careers. They emphasized that they were exhausted, frustrated, and feeling somewhat despondent about their futures in the classroom. The two Denver-metro based teachers both mentioned that they are considering leaving their positions as classroom teachers in hopes of pursuing a different career, perhaps outside of the school environment altogether. Interestingly, both teachers teach in different school districts, but the negative pressures they feel are very similar. The struggling teachers share a few commonalities. First of all, they are both relatively new to the teaching profession; Mrs. Anne is in her sixth year of teaching while Ms.
Nunes is in her third year of teaching. Additionally, and perhaps most importantly, both teachers are working at school sites that have recently been adopted by their respective districts. The Learning Place is in its seventh year of operation, while Destination Innovation opened its doors just three short years ago. This is noteworthy because the root of the issue seems to stem from the relative newness of the school site and its lack of acceptance amongst district administrators. While they both express great satisfaction with their school site administrators, both Mrs. Anne and Ms. Nunes speak of not feeling trusted by the administration at the district level. They both say the district administrators do not seem to trust the school’s vision and they fear they will not have sufficient trust until the schools have test scores to support their approach to learning. Unfortunately, the standardized tests the students are required to take have very little to do with what the students are learning and how they are learning it in their arts-based school environments. For example, at both the Learning Place and Destination Innovation, computer literacy is not of utmost importance in the early elementary grades yet they are expected to take the standardized tests on the computer by third grade. In addition to the computer literacy gap, the standardized tests do not reflect the additional learning experiences such as ceramics, theater, visual arts, and music that these students are receiving. Simply stated, the required standardized tests do not reflect the goals of the schools participating in this study. Eisner (1998) emphasizes the important role of the evaluative dimension and its impact on the aims of the school when he states, “I believe no effort to change schools can succeed without designing an approach to evaluation that is consistent with the aims
of the desired change” (p. 81). In other words, how can we change the structure of a school without also changing the way in which we evaluate it?

Additional issues exist, particularly at the curricular level, as a result of adhering to district requirements. For example, although The Learning Place is an arts-based integration school focused on incorporating the arts across all disciplines, they are required to follow the district-adopted curriculum, which teaches subjects in isolation. Due to the “innovation status” of Destination Innovation, the teachers have more flexibility in curricular choices, but they are still accountable to the district for all test scores and general student achievement.

Interestingly, the two participating teachers from Armstrong Elementary did not express similar concerns. On the contrary, they both expressed great satisfaction with their school sites and the autonomy they are given. When I asked both Mrs. Inder and Mrs. Marie to share their greatest challenges, they articulated common teacher and school-oriented issues such as too much change at the administrative level and “knowing when to stop” the workload in order to maintain a healthy school-life balance. Also noteworthy, Armstrong Elementary functions very independently from its “governing” school district. The Sunset Cliffs community of schools has been around long enough to prove their success and they are therefore left to manage their school site relatively independently. I posit there is a direct connection between the high satisfaction level of the Armstrong Elementary teachers and the complete autonomy they are given from their school district. The teachers receive autonomy, and in turn they feel trusted and valued, which leads to higher levels of job satisfaction and teacher retention.
On the topic of trust, all teachers spoke of the importance of feeling trusted. While Mrs. Inder and Mrs. Marie spoke of feeling trusted by the site administrator and fellow colleagues, Ms. Nunes and Mrs. Anne shared that they longed for more trust from district level administrators. Mrs. Anne stated that she just wants to be trusted and that she wants the “freedom to be a professional” while Mrs. Nunes shared frustration with the discordant nature of the school district to their school site. This finding is significant, particularly for educational administrators, because once again, the participating teachers mentioned that feeling trusted and valued strengthens job satisfaction. Additionally, as I stated in Chapter One, I posit that simply sharing the stories of the participating teachers will create an awareness, which in turn has the potential to serve as a catalyst for further research studies.

**Emergent Themes**

Upon analyzing the data and organizing the findings into the relevant research questions, a few additional themes remained that will be shared as emergent findings. These include district and state pressures, the curricular dimension, and conceptual understandings.

When this study began, the goal was to study what teachers who cultivate creativity do that is unique. Inevitably, studying the teacher’s craft, also meant exploring the challenges and obstacles they face in their path of cultivating creativity. In many cases, this opened the door to discuss district and state pressures and their impact on the classroom environment and the teacher’s craft. Because the *district and state pressures*
were explored in greater depth in the previous section, I only touch on this briefly in this section, simply to note that the theme emerged.

The second emergent theme, explores the curricular dimension of schools and teachers that cultivate creativity. Because this study was focused primarily on the teacher’s practice, I strategically chose not to emphasize the curricular dimension in great details, knowing that curricular decisions do not typically fall in the hands of classroom teachers. However, after completing the teacher interviews, I was quickly reminded that the curricular dimension is inseparable from the teacher’s practice. It becomes nearly impossible to address one without the other. Additionally, the curriculum was of primary focus to some of the participants. Because of this, the curricular dimension was added as an emergent theme.

Within the curricular dimension, the topic of curricular autonomy was a primary focus for participating teachers. If they had curricular autonomy, they mentioned loving it; if curricular autonomy did not exist at their school site, they longed for it. Mrs. Anne spoke of wanting to be trusted as a professional just enough to be able to make curricular decisions for her students. While Mrs. Inder and Ms. Nunes both stated that they would not change anything about their curricular situation as they have the ability to “make any changes they need.” Also noteworthy is the fact that teachers were most satisfied in school sites where students also had freedom in the curriculum to make changes. For example, Mrs. Inder’s projects often unfolded based on student interest or student need. She described one academic quarter in which she had planned on engaging in a particular project with students; however, after a great deal of feedback from students, they let the
student passion be their driving force and they changed course to a new project. Likewise, at Destination Innovation, students were given great curricular freedom, particularly during Curiosity Crews, in which they explored a chosen passion area once a week with students from varying grade levels. This mirrors the curriculum approach that research suggest for developing creativity. Collins and Amabile (1999) remind us that “the best way to help people maximize their creative potential is to allow them to do something they love” (p. 305).

All four teachers sought to develop a rich conceptual understanding of material in all subject matters, which is the last emergent theme. Most would argue that this is how all classrooms should operate; however, this ideal becomes difficult when one realizes just how much “material” teachers are expected to “cover” in an academic school year. Regardless of difficulty, developing deep understanding of information is paramount to fostering a rich learning process. All four teachers knew this, and therefore they focused their efforts on nurturing their students’ conceptual understandings.

**Limitations**

Perhaps the biggest limitation of this research study presented itself very early in the data collection phase. While I had identified a working definition of creativity to be applied to this research study, I chose not to disclose the definition to participating teachers before conducting interviews. My intentions were simple- I wanted the participating teachers to grapple with their own, authentic definitions of creativity prior to hearing the definition guiding this study as to avoid influencing interview data. However, in hindsight, I believe intentionally withholding the working definition of creativity from
the participants may have negatively affected the teacher responses, particularly Mrs. Marie’s response. Mrs. Marie was the first teacher I interviewed and her responses to the interview questions seemed guarded and overtly concise. This is a limitation because I found myself struggling to acquire ample data for her given the reductionist type responses I received. I posit that the main reason for this is that Mrs. Marie, having not immediately identified herself and her teaching practice as being overtly creative, lacked confidence in her involvement in the study. Because of this, I believe she hesitated to share too much detail in fear of exposing what she feared were her own shortcomings. However, the true breakdown was not in the appropriateness of fit for the study, but rather in conflicting views of creativity. Mrs. Marie, and the other participating teachers associated creativity with Big C, eminent-type creativity and therefore questioned their involvement in the study. I uncovered this issue of extreme brevity after analyzing the first round of interview data from Mrs. Marie and decided I would need to alter the interview process for the remaining three teachers and also for the second interview with Mrs. Marie. I decided to offer a very brief definition of creativity and its application to the study by sharing information about my conceptual framework, the intersection between CREATE and CRISPA. After learning that the definition of creativity being applied was most similar to critical and innovative problem solving, the teachers seemed relieved, inspired, and incredibly interested and I do believe it opened the door for more authentic responses. In the end, I am listing this as a limitation because the complexity of the term creativity, albeit briefly, impacted the data collection.
Further Research

When this study began, I sought to examine the intentional, curricular and pedagogical dimensions of the classroom as well as the physical environment. As discussed in Chapter Three, I had no intention of including Eisner’s evaluative dimension of schooling as I felt as though it would change the course of research too greatly. I also noted that I had every intention to study the practice of teaching and in today’s educational world, evaluative decisions are not commonly left to teachers. However, at the conclusion of this study, it became more apparent to me that the evaluative dimension truly permeates the public school culture and is therefore difficult to separate. Simply because the teachers do not have control over the evaluative dimension, does not mean the evaluative dimension does not dramatically impact and directly influence their practice. Because of this, I think it would be insightful to conduct a future study that heavily considers, and perhaps solely considers, the impact of the evaluative dimension on the cultivation of creativity in public school classrooms.

In order to minimize factors and compare similar educational settings, I chose to focus this study on public school classrooms. Further research might include conducting a similar study on the practices of teachers in private schools with a school mission to cultivate creativity and innovation. It might also be interesting to compare the practices of teachers in private schools with those of teachers in public school settings. Highlighting issues of autonomy and trust could prove to be particularly compelling.

Another potential offshoot of study could be the curricular connection between Total Physical Response method (TPR) and the process of cultivating creativity in the
classroom. While observing in the classroom, I witnessed many examples of TPR in different teachers' classrooms; however, when I turned to the literature to help support my findings, I found an incredible dearth in the literature in terms of the potential relationship between TPR strategies and the cultivation of creativity, including the application of TPR strategies in creative and innovative settings. The connection seems somewhat inherent, as though a natural relationship could exist. To date, the TPR model has been most widely studied in its application to language acquisition and second language learners. Interestingly, the TPR model echoes the “active engagement” dimension of CRISPA, which exists to enhance aesthetic learning experiences and strives to make an ordinary learning experience extraordinary. As I stated previously, the relationship between fostering creativity and implementing the TPR model seems innate, which leads me to believe TPR could have a powerful impact on the field of creativity studies. Because of this, I think there is great potential for further research to be conducted.

Finally, I found the process of extracting what Eisner refers to as each teacher’s “personal signature” to be insightful and challenging. The challenge presented itself in the identification and recognition stage as I found it can be incredibly difficult to accurately and thoroughly understand one’s personal signature without spending extremely long periods of time in each classroom. With the luxury of time and perhaps fewer research participants, a researcher could depict each teacher’s personal signature more comprehensively and in greater detail, which in turn would strengthen our understanding of teachers’ personal signatures and the impact they may or may not have.
on the cultivation of creativity. Finally, while the “personal signature” may be hard to observe and even harder to measure or define, I believe it is a vital component to an education criticism study as it helps us understand what numbers often lack— that is, the personality in the classroom.

**Closing Comments**

Raising awareness is the first step in creating successful change. As a researcher, I set out to shed light on the importance of cultivating creativity in the elementary, public school classroom. By studying the practice of four elementary classroom teachers, I hoped to distill common themes that could be included in future academic conversations. It is my hope that this study, and others that follow, will serve to ignite those very conversations and in turn, generate change.

Teaching with the intention of cultivating creativity and innovation is the first step in finding a solution to the challenging question posed by Elliot Eisner— “How do we teach kids what to do when they don’t know what to do?” In order to adequately prepare our youth for the richly innovative world of tomorrow, educators must find ways to nurture flexible thinking and critical problem solving. Often times this will mean stepping away from the textbooks, the worksheets, and even the standardized tests, in order to consistently give students authentic learning opportunities that allow them to tinker and grapple with their conceptual understandings. Perhaps then, students in classrooms around the world, may come to know the excitement of innovation and the wonder of creativity. At that time, students may have the personal experience that is necessary for poignantly answering Elliot Eisner. I contend the proposed response may
go as follows: “We follow our innate curiosity. We tinker to gain understanding. We innovate to find solutions to authentic problems. We learn by doing. We are passionately inspired. All because we had educators that have the audacity to believe it is possible to nurture one of our most innate and precious gifts— that is, the ability to think creatively.”
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Appendix A

(Identified Teacher) Recruitment Letter

Date

Dear __________,

I am writing to ask for your participation in a research study on teaching for creativity in the elementary classroom setting. You are receiving this letter as your colleagues and administrators have identified you as an exemplary classroom teacher who cultivates creativity in students. Your participation in this research study is an opportunity to share your extensive teaching knowledge and skills, helping us to better understand teaching for creativity and improve the profession of teaching.

The study will explore teaching for creativity at the intentional, pedagogical, and curricular levels. As an identified “exemplary teacher” in the cultivation of creativity, your thoughts and contributions are invaluable in this research. Therefore, I hope you will allow me to conduct two, one hour-long interviews and also observe your engaging classroom environment for approximately one week. I will conduct the interviews and classroom observations sometime in April and May, as your schedule allows. Please remember, that your devotion of time serves as a wonderful contribution to the field of education.

If you are willing to participate in a series of classroom observations and interviews, please send a brief reply to me at this e-mail. As a compensation for your time and contribution to this research, you will receive a $30 gift card to amazon.com to thank you for your thoughts and your valuable input.

Participation in this study is, of course, voluntary and you may decline to participate at any time without penalty. If you decide to participate and then change your mind you may withdraw at any time without penalty. Thank you for considering contributing to this research study.

If you have any questions, please feel free to contact me, Kari Colley, at karicolley@gmail.com or 530.518.3426.

I look forward to your reply and thank you sincerely in advance for your contributions.

Sincerely,
Kari Colley
University of Denver, Doctoral Candidate
530.518.3426
karicolley@gmail.com
Appendix B

Interview Schedule

*(To be completed with each teacher over the span of two interviews, each lasting approximately 60 to 90 minutes in duration.)*

**Introduction/Background:**

1. Can you tell me about your educational background? Schooling experiences? Higher education? Teacher preparation programs?
2. Please tell me about what led you to become a teacher. (What inspired you?)
3. Tell me what it’s like to be a teacher in today’s world. (What are some of the challenges and rewards of the job?)
4. In your opinion, what does it mean to be creative? (How do you define or judge creativity in the teaching practice?)
5. Do you find it important to nurture your creativity as an adult?
   a. If so, how do you accomplish this task?
6. Do your activities or creative work outside of teaching ever factor into your thinking about your classroom or students?

**Intentions:**

7. What are your intentions (hopes/goals/ambitions) for your students?
   a. Do your beliefs about creativity influence your intentions in any way?
   b. If so, why, how.
   c. Are your students aware of your intentions? If so, how?
Pedagogy:

8. Tell me about your teaching philosophy.

9. What are your beliefs about:
   a. The teacher’s role
   b. Type of instruction/learning
   c. Delivery of instruction

Curriculum:

10. Please tell me about your approach to curriculum. (What kind of curriculum is used at your school site?)
   a. Did you have a hand in selecting or developing the curriculum you are using in your classroom?
   b. Would you change anything about it? (Or do you already) If so, what?

Structure:

11. Tell me about your classroom environment.
   a. What do you attend to most in the physical environment of your classroom? (ex: furniture arrangement, walls, colors, light, odors, access to materials, organization…) Is there a space your students seem drawn to?

General:

12. What do you find most interesting about your work?

13. What do you find most challenging about your work?

14. Do you have anything else you would like to add?
(Save for the second interview)

CRISPA

15. I have some questions about an approach to teaching and learning. I will briefly explain the general concept and each theme, and then I will ask how these themes may or may not apply to your teaching and/or classroom.

   a. Connections
   b. Risk-taking
   c. Imagination
   d. Sensory engagement?
   e. Perceptivity
   f. Active Engagement

(Probing Questions: As an educator, are you drawn to any of these themes? Do any standout to you? Can you recall lessons you have taught in which you utilized any of these themes? Describe the learning process that ensued.)

CREATE

16. Next, I have some questions about creative habits of mind. I will briefly explain the six habits of mind, and then I will ask how these themes may or may not apply to your classroom setting.

   a. Curiosity
   b. Resilience
   c. Experimenting
   d. Attentiveness
   e. Thoughtfulness
   f. Environment-Setting
17. (Probing Questions: Can you recall lessons you have taught in which some of these creative habits of mind may have been encouraged? Do you value any more than others?)
Appendix C

Research Timeline

April 2014- Dissertation Proposal Defense
April 2014: IRB Approval, District Approval where necessary
April-June 2014: Data Collection and Analysis
October 2014- January 2015: Data Collection and Analysis; Writing of Dissertation Chapters
January 2015-April 2015- Final Analysis and Writing
May 2014: Defense of Dissertation
June 2015: Graduation